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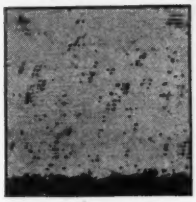

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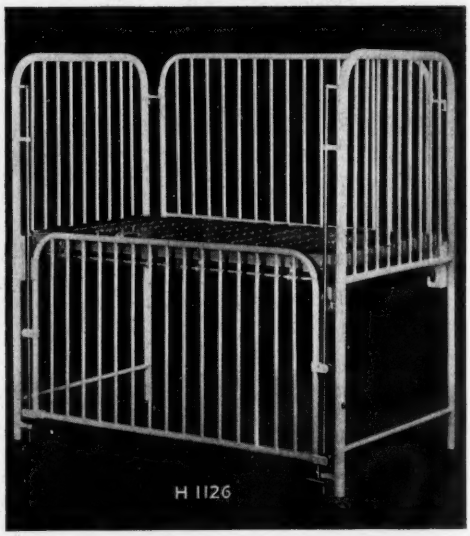

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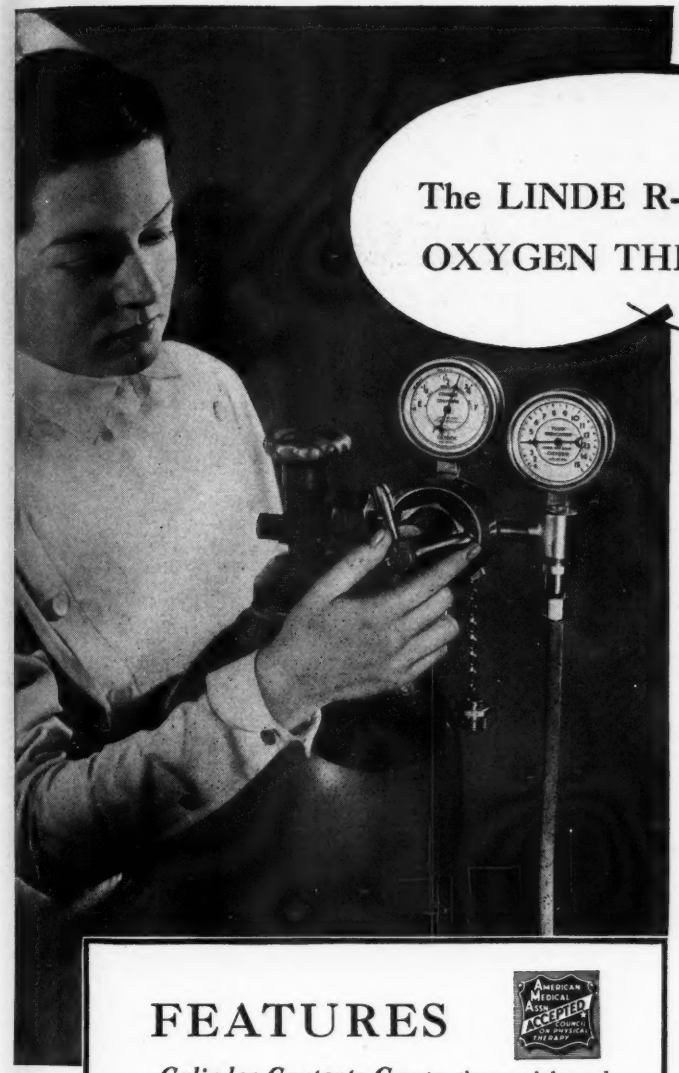

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HOSPITALS

THE JOURNAL OF THE AMERICAN HOSPITAL ASSOCIATION

VOL. 11 NOVEMBER, 1937 NO. 11

Some Lessons from the Hospital Survey for New York

HAVEN EMERSON, M.D., New York City

The Author

● Haven Emerson, M.D., is a close student of hospitals, a leading authority on public welfare problems, and the Director of the Hospital Survey for New York.

WE SEEM to be now at the stage of contemplation, answering of questions, and taking to heart lessons learned from two years and a half of study of that most intricate social utility created to apply the medical sciences for care of the sick among the largest urban aggregate of population in human history.

Following are some of the lessons learned or confirmed from the consideration of the findings of the Hospital Survey for New York.

Hospitals Need Accessory Institutions

1 In considering the institutions and agencies devoted to the care of the sick, whether from the point of view of government or private philanthropy, in the interest of the patients or that of solicitous friends or family, with the individual practitioner in mind, or education in medical and allied professions, we can no longer meet with economy and efficiency the higher possibilities of the art and science of medicine in hospitals alone as they have been conceived and conducted in the past. Although the hospitals of the New York metropolitan area represent 91 per cent of the total investment in facilities for organized care of the sick, and all the homes for convalescents, for the chronically ill, the independent dispensaries, visiting nurse services, industrial medical services, home medical care, and fund raising agencies combined represent but 9 per cent, this tenth of the gross investment is related to indispensable auxiliaries, of growing dimensions and concern both to the sick and to the public which pays.

General Rather Than Special Hospitals

2 The general hospital is destined to hold always the key position as the central and distributing power house for all variety of diagnostic and therapeutic skills and resources, whether human or mechanical, required by the sick, momentarily as it were, or permanently for the few whose life is possible only within call of nurse and resident physician. The general hospital rather than the special will be increasingly the institution of preference on account of the advantages of readily available collaboration among consultants and that wide variety of techniques and judgments best developed where every variety of patient and disease is adequately provided for. With the probable exception of permanently ill mental patients and of most of the tuberculous, all types of patients whether neurological, eye, ear, nose and throat, orthopedic, maternity or children, and including those with communicable disease can be

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better cared for, and more economically, in a comprehensive general hospital than in hospitals limited to special types of disease.

Larger Rather Than Smaller Hospitals

3 As a corollary it appears that large hospitals of approximately 500 beds are more useful in urban communities of 200,000 or more than are hospitals of 200 beds or less. Occupancy percentages largely determine patient day costs, and occupancy is more apt to be maintained at a high level where all variety of illness is provided for and where the professional staff includes representatives of each specialty in medicine and surgery than where certain types of patients must be turned away because of lack of some particular professional skill or technical equipment. Small hospitals often cannot justify the acquisition of expensive apparatus rarely used, or attract all kinds of specialists to their staff.

Hospital Rather Than Independent Dispensaries

4 Dispensary services provided by philanthropy or government, independent of a general or special hospital, are of less use to the community, and develop more professional weakness and inadequacies than do those operated as integral parts of the administrative unit of a general hospital by members of the medical staff of the hospital. This applies particularly to the independent dispensaries operated by departments of health for tuberculosis, venereal diseases, prenatal care, etc. Both patients and attending staff suffer from the independent status of a dispensary because of the lack of such background and professional affiliation as can be had only through the organized staff of a hospital.

Central Planning Board

5 When two or more hospitals and allied institutions and agencies serve a community or region some form of permanent planning board or council, primarily concerned with capital outlays, with the economies of central purchasing, and avoidance of duplicating or competing services, appears essential to avoid waste or inadequacy of facilities. Only through the exercise of public spirit and sound judgment by a group of men and women, more concerned with the necessities of their community than with institutional dominance and ambition, can gross waste in capital investment and operating costs be consistently reduced to the taxpayer and voluntary contributor, and to the patient.

Physicians to Be Paid

6 Increasing demands upon the attending staffs of hospitals for care of non-paying patients makes necessary, especially for those on dispensary duty and for the young assistants on ward duty, some payment to physicians doing non-educational repetitive and routine services for the indigent sick. Of 3,151 attending physicians in New York City on out-patient services only, but 109 or 3.5 per cent were paid in 1935, and of the 18,636 positions on hospital staffs in New York City the occupants were paid some salary in only 8.3 per cent of the cases.

Property Investment of About $50 Per Capita

7 To meet the obligations which the advancing resources of the medical sciences offer us, it is likely that from $35 to $60 per capita will have to be invested by any urban community in land, buildings and equipment for the use of institutions and agencies caring for the sick.

At present the property investment of the 11,000,000 people of the New York metropolitan area in institutions for the sick amounts to $49.91 per capita, that of the 7,000,000 people of New York City being $56.93 per capita and that of the 4,000,000 in the adjacent seven counties $35.51.

Philanthropy Still Carries Major Load

8 While the situation elsewhere in the Unted States may vary widely with the age or maturity of the community, with its position as an educational center, the demands upon it by commerce and industry, its rate of growth and its wealth and spirit of initiative and of its political life, it will probably be found that philanthropy will have borne the largest share of the gross investment, in our experience 64 per cent, while government has provided 31 per cent and proprietary interests 5 per cent.

Adequacy of Institutional Capacities

9 Based on experience with 71,000 hospital beds and 7,000 nursery bassinets, in the matter of their use on an annual basis, and upon evidence from various sources of adequate provision for the sick, it appears that not more than 4.5 beds per 1,000 of population are needed for general medical and surgical patients, the 4.27 in the New York metropolitan area as a whole, the 4.57 in New York City and the 3.65 in the area outside of New York City being apparently sufficient.

Hospitals

The very definite overcrowding of certain governmental hospitals and the under-use of considerable pay and part-pay facilities in some voluntary hospitals are evidence of bad judgment and injudicious institutional planning rather than of a disproportion in the provision of beds per unit

of population as a whole. The ratio of 9.69 hospital beds for general care in the borough of Manhattan per 1,000 of population represents not an ideal or a present necessity so much as an accumulation of resources under the pressure of educational demands, exalted estimates of future growth and of wealth beyond the usual expectation of other communities.

This centralization of more than double the usual ratio in a borough unlikely to maintain its present population must be thought of as a liability and a warning rather than as necessary, desirable, or resulting from an intelligent foresight or scientific planning.

Children

For children the ratio usually quoted as expressing adequacy, i.e., five beds for each 10,000 of the population is exactly met by the metropolitan area outside of New York City and is slightly exceeded in New York City itself with 6.1 such beds per 10,000, again Manhattan showing a very high ratio of 12.9 per 10,000. This is ample in view of steady reduction in proportion of children in the population.

Maternity

On the present basis of use, and expecting maternity beds to be used only to 80 per cent of their potential capacity, it is found that more beds than are needed are actually available for maternity patients. It appears that the falling birth rate is reducing the demand for hospital maternity services in many cities and that housing congestion, reduction in the use of midwives and the changing fashions of medical preference for hospital rather than home confinements are factors tending to increase the need of maternity beds. Good home delivery under specialist obstetrical direction and with maternity nursing assistance would apparently reduce maternal mortality and the cost of childbearing. At least in the New York metropolitan area more beds for maternity patients will not be needed for several decades, unless there is some radical increase in the usual period of post-partum hospital care advised by obstetricians. In New York City 81 per cent of births are in hospitals and less than 4 per cent are attended by midwives.

Communicable Diseases

In spite of the fact that in New York City on the average only 1,026 of the 1,498 beds for communicable diseases are actually used for this purpose there is no evidence of insufficiency of such beds, even though the ratio of beds to population is two instead of the usually recommended five per 10,000 of population. In the area outside of New York City there is a more generous provision of such beds up to a ratio of 4.2 per 10,000.

It is evident that tangible savings in cost of hospital buildings and their operation can be had as the result of the shrinking proportion of children in the population, improved immunization resources, milder forms of some of the communicable diseases, and the more general safe and effective use of visiting nurses for the home care of children isolated for communicable disease by regulations of the local department of health.

More beds are not in general needed for these diseases in American cities, and if found lacking they should be provided in a separate pavilion or service of an existing general hospital rather than in a special hospital.

Tuberculosis

For the tuberculous, New York City provides barely one bed per death from this disease per annum and needs desperately 1.5, and should have for the most effective application of our present knowledge of prevention as many as two beds per annual death. The ratio of 1.7 beds per annual death in the outside area closely approaches the ideal.

Any inability to give immediate and prolonged and if necessary free hospital care to a patient with tuberculosis, particularly if he has positive sputum, constitutes a costly error in community planning and will cause a postponement in the reduction of incidence of the disease. Every urban community in the United States and Canada should have available at least one and a half and preferably two beds for each annual death from tuberculosis.

There is no other category of patients except those suffering from mental disease who are so overcrowded and lacking in the best the medical profession can give them as are the tuberculous of the City of New York.

Mental Cases

In the New York metropolitan area and in most states of the Union there is inadequate provision in hospitals for mental patients. We find at present an overcrowding of 17 per cent beyond the normal bed capacity of the state hospitals for mental disease. While the present rate of increase in admissions to mental hospitals is not expected to continue during the next two decades, it is obvious that a very considerable increase in state hospital capacity for mental patients is needed now.

Home Medical and Nursing Care May Reduce Hospital Needs

As the most effective way of reducing the demand for hospital care, the provision of medical

and nursing services for the sick in their homes seems likely to produce the best results, and it is believed probable that approximately 5 per cent of patients now admitted unnecessarily to the wards of general hospitals could receive all the medical and nursing care their condition calls for if an extern medical service were organized under the staff of a general hospital, and the cooperation of visiting nurses were provided for at public expense, as public charge patients are paid for in wards of voluntary hospitals.

Visiting Nursing

While the extent of such medical and nursing extension must remain problematical until thoroughly tested there is ample evidence at present that the community could use to advantage and with economy and avoidance of much hospital care at least twice as many nurses as are now employed by the voluntary nursing associations in the metropolitan area today, or the equivalent of one visiting nurse for each 2,500 of the population, a ratio found attainable and effective in some other communities.

Ambulance Service

An organized ambulance service appears desirable in any community to meet the transportation needs of both voluntary and governmental hospitals.

Provision of this kind is lacking in the area outside of New York City and is not at all universal in the cities of the United States.

Convalescent Care

While the ratio of convalescent beds to 100,000 population is 7.1 in the United States as a whole and 53.9 in Great Britain and 59.5 for New York City, the population outside of New York City is but ill served in this respect.

Unless there are at least 50 convalescent beds per 100,000 of population it is quite certain that sickness costs will be unnecessarily high in a community by reason of holding patients in general and special hospitals longer than their condition actually requires and because they are not yet fit to resume the obligations and conditions of their own homes. The lower capital outlay per bed and an operating cost of about one-half or less per patient day than in a general hospital makes the convalescent home a necessity from the economic point of view, as it is desirable from the medical.

Care of the Chronically Ill

No one can predict the exact extent of needs for chronically ill patients but the increasing average age of the population, and the high proportion now living into the decades when the infirmities of age and middle life are likely to call for prolonged or continuous hospital service of some kind, makes an expansion for such patients seem clearly indicated. Between now and 1960 it is probable that almost 10,000 additional institutional beds should be provided for the chronically ill in the New York metropolitan area.

The overcrowded and neglected conditions of the aged and infirm in public institutions in or near most large cities in the United States is proper cause of reproach.

Investment

10 On the basis of our Survey experience 1.7 per cent of the total wealth of the population or $536,000,000 is invested in property concerned with care of the sick, of which fifty-four per cent was in voluntary, forty in governmental and six in proprietary institutions. There are abundant reasons for encouraging the continuance of the present dual system of hospitals, the voluntary and the governmental, with perhaps a gradual increase in investment in tax supported institutions until in another twenty-five years this is equal to the property investment in voluntary hospitals.

Depreciation

11 Few institutions make any provision for the perpetuation of their property investment by creation of a depreciation reserve fund to cover normal wear and tear and obsolescence. Depreciation should be considered as real a day to day cost as any of the operating costs such as salaries, wages, and food. After deduction of liabilities and depreciation, the net equity of the institutions is 50.4 per cent of total property investment.

12 Gross investment per hospital bed in the New York metropolitan area averaged $8,915 of which $6,860 or 76.9 per cent was owned free of debt. For voluntary general hospitals in New York City the average gross investment per bed ranged from $31,383 for some hospitals of 500 beds and over to $6,167 in those of less than 100 beds.

The average property investment per patient day of care given in voluntary general hospitals in New York City where there were optimum facilities was $40.60 and where there were minimum facilities this was $20.90.

Unused or Waste Investment

13 Of the total property investment in hopitals in New York City on December 31, 1934, it is esti-

mated that $32,528,108 or 8.6 per cent was not in active use during the year, a heavy economic waste. Most of this (63.5 per cent) was in voluntary general hospitals, the larger the hospital the lower the percentage of idle investment, although the high property investment among these was responsible for an idle capital amounting to $7,474,126.

Not one of the six voluntary general hospitals of 500 or more beds had an operating deficit at the end of 1934, but nearly half of the hospitals of less than 300 beds had operating deficits in that year.

Endowment

14 The *net endowment* held by 665 institutions for the sick amounted to $64,103,471 on December 31, 1934. The average net endowment fund principal per ward bed in 47 voluntary hospitals in New York City was $5,636, ranging from $30,000 to less than $1,000 per ward bed. The distinction between endowment and so-called reserved funds, the principal of which may at any time be expended, is not always clearly stated to or understood by the public appealed to for contributions, and many institutions have accumulated substantial reserves of this character but have treated them as if they were in fact endowment.

Total Cost

15 The total bill for organized care of the sick in the New York metropolitan area in 1934 was $131,640,000, including depreciation and the value of tax exemptions and free water. Of the total of $109,244,000 actually paid out by the institutions, 51.8 per cent represented the expenses of voluntary agencies, 35.3 per cent governmental, and 9.9 per cent proprietary.

The average total cost per in-patient day in voluntary hospitals (operating $6.19, non-operating expense $0.36, depreciation $0.76) was $7.31, in governmental was $3.55 and in proprietary was $11.68.

Tax Exemption

16 The voluntary hospitals in the New York metropolitan area receive the benefit of exemption from real estate, water, and other taxes to the amount of $5,674,316. The average cost per patient day in proprietary hospitals includes these taxes among their operating costs.

In-Patient and Out-Patient Costs

17 In voluntary general hospitals of 500 beds and over the total hospital cost per patient day was $9.03 (depreciation included) and in hospitals of 100 beds or less was $6.58.

Out-patient visit cost including depreciation averaged $1.02 in voluntary and $0.39 in municipal general hospitals, in voluntary independent dispensaries $1.32 and in municipal independent dispensaries $1.24.

The average cost per patient day in *convalescent homes* in 1934 including depreciation was $2.35.

The cost per nursing visit including depreciation was $1.14 for voluntary and $1.11 for insurance company agencies in New York City.

Income

18 The income of institutions and agencies for the sick in the New York metropolitan area amounted to $107,031,000 to meet a gross cash outlay of $109,244,000 not including depreciation of $11,835,000, which if taken into account would have created a gross deficit of $14,048,000 in 1934.

Ninety and one-tenth per cent of the income of all institutions and agencies for the sick was received by hospitals. Of the income of all 655 institutions studied in detail, 85.1 per cent was revenue from services rendered patients (including tax appropriations), 5.6 per cent was non-service revenue (dividends and interest) and 9.3 *per cent was cash contributions* and their equivalent in services, supplies, and rent.

Of total income 44.5 per cent was from tax funds and 40.6 per cent was in payments by or for patients other than public charges.

The visiting nurse associations under voluntary control in New York City received a larger proportion of their income—53.0 per cent—in the form of cash donations than did any other institutions or agencies for the sick.

Economic Practices and Policies

19 *Rates*—While the average rate charged for ward services in voluntary hospitals was $3.50 the average ward operating expenses exclusive of non-operating costs and depreciation was $5.54. The average charge for private rooms was $10 and the corresponding expense was $8.75 and semi-private $5.60 and $5.99 respectively. The median charge for out-patient visits was fifty cents and the maximum $1 for the first visit.

Allowances

Allowances for bed, board, and routine for ward patients amounted in 1930 to 44.4 per cent of

potential earned income from this source, and for private patients amounted to 9 per cent and for semi-private to 5.3 per cent of the potential earned income.

Free Care

Control of amount of free hospital care provided was loose and determined solely by the administrator in the great majority of voluntary hospitals. In only rare instances do hospitals keep a record of the number of patients refused admission because of inability to pay. Uncollectible accounts of 98 voluntary hospitals in New York City amounted in 1934 to 3.6 per cent ($631,789) of the income received from patients. There is lacking any joint organized effort for collection of unpaid accounts such as is in effect in some other cities.

City Pay

20 New York City pays $3 a day to voluntary hospitals for ward care of general medical and surgical patients which costs these institutions, exclusive of depreciation, $5.74 to provide, the comparable cost of ward care in the municipal general hospitals being $3.90 on the average, and $5.79 in the smaller municipal general hospitals.

It is apparent that cities could generally save taxpayers, with benefit to the sick, by paying for ward care in voluntary hospitals at rates at least equivalent to the cost of such service in the City's own hospitals.

21 Among 94 voluntary hospitals in New York City, only 29 prepare annual budgets, and of those that did more than half did not obtain official approval of their budget before the beginning of their fiscal year. In only 18 hospitals did each department receive a copy of its budget.

Books of account were kept on a full accrual basis by 18 and on a partial accrual basis by 47 and on a cash basis by 29, among 94 voluntary hospitals in New York City. Most of these hospitals have grown beyond the practicability of a cash accounting basis.

From the record of the voluntary hospitals of New York City it is apparent that in many instances the bodies and persons legally responsible for their management are not informed with sufficient completeness and frequency as to the institution's financial affairs.

Even the 35 of the 99 voluntary hospitals in New York City which publish annual reports did not all contain complete statements of income and expenditure and financial conditions for the year, and when reports were published they were in some instances inaccurate and misleading by reason of omission of some item of contribution to income, thus giving a false picture of the current deficit.

Only 19 of the 94 voluntary hospitals in New York City made purchases through the *Hospital Bureau of Standards and Supplies* and in 44 there was decentralized or multiple purchasing responsibility within the hospital.

Inventory control by physical count of supplies prevailed on an annual basis in 31, semi-annual in 8 and monthly in 3 of the voluntary hospitals of New York City.

Estimates for 1960

22 It is estimated that by 1960 the population of the New York metropolitan area will be about seventeen and a half million, an increase of 63.2 per cent, and that a 64.6 per cent increase in hospital beds will be required (45,824).

Besides the estimated number of additional beds there will have to be replacement of beds on account of depreciation and obsolescence of existing buildings and equipment (33,209).

If there is provided suitable control through some coordinating or planning body to prevent wasteful, superfluous, and competing capital outlay there will be needed for new and replacement beds a property investment in the next twenty-five years for hospitals of $537,037,600 ($320,292,300 for new and $216,745,300 for replacement beds), at the rate of $7,000 a bed for new and $6,500 for replacement beds.

The heaviest burden should be undertaken in the next six years at the rate of $28,000,000 a year, which does not seem impracticable in view of the fact that property investment in hospitals in the metropolitan area amounted to approximately $20,000,000 a year in the four years 1931-1934.

If to the new and replacement property investment in hospitals there is added the estimated needs of new and replacement beds for convalescent and chronically ill patients and for visiting nurse facilities the total investment from 1935 to 1960 will amount to $607,216,300.

Taking the new property investment together with the present property investment in all facilities for organized care of the sick in the New York metropolitan area this would represent a per capita investment for the expected population of 1960 of $52.32, compared with the per capita investment today of $49.91 for the entire area and

of $56.93 for the present population of New York City.

We should be unreasonable and lacking both in conviction and imagination if we did not believe in, and act with necessary foresight to achieve this provision for the sick. While increasing success in efforts at prevention of diseases can be relied upon to lower to an irreducible minimum those found actually to be preventable, there is reason to expect that the application of medical science through the institutions and agencies which society and government have already found indispensable will be required in 1960 as in 1937. It is unlikely that any other application of personal savings and public appropriation of tax monies will bring greater satisfaction to individuals and to the community than will this estimated investment for care of the sick. By no other token or index is contemporary society better measured than through its willingness to see that every useful resource of the medical sciences for the accurate and helpful diagnosis and treatment of disease is made available to those who need it.

Conclusion

23 The most important lesson which it appears to me has been learned from the Hospital Survey for New York is that the cost of care of the sick is too much for the sick alone to carry. The well should expect to pay for the care of the sick. The great benefits of voluntary collective thrift, and a reasonable regard for the expected and inevitable hazards of life combine to persuade each of us to set aside while in health and in our years of productive ability, those sums which will secure for us good care in illness.

No single device of organization to facilitate individual investment in institutional care of sickness promises so much as the pre-payment plan now so well established among the voluntary hospitals of many of our cities, and generally in Great Britain.

Henry Adams Rowland

Hospital workers throughout Canada and the United States will be greatly shocked to learn of the sudden death, from a heart condition, of Henry Adams Rowland, Toronto, Superintendent of the Riverdale Isolation Hospital and Secretary of the Health Board for the city of Toronto. Mr. Rowland had not been in the best of health for some months, but his friends had hoped that he was on the road to recovery and had welcomed his recent return to his desk.

Henry Rowland had long been a staunch supporter of hospital progress and development and had a very wide circle of friends in the hospital field. His cheery smile and cordial handshake will be missed at the conventions of the American Hospital Association, of which body he has been a Vice-President, and has served for many years on its various committees. The Atlantic City meeting was the first which he had missed in nearly twenty years. Our members will long remember the happy way in which he presided at the Annual Banquet at the Toronto meeting in 1931; much of the success of that meeting being due to his personal efforts as Chairman of the General Committee. In addition to his other duties, Henry Rowland found time to be Secretary of the Toronto Hospital Council, a member of the Editorial Board of *The Canadian Hospital,* and to serve his fellow citizens as an alderman for five years. Mr. Rowland was graduated from the University of Toronto.

We miss men of Rowland's type. Soft-spoken, kindly, and considerate of others, unobtrusive, correctly groomed—he typified the perfect gentleman in every respect. One of the secrets to account for the love and devotion held by countless individuals for Sir William Osler was his thoughtful actions, no matter how overcrowded his day, to pen some short note of sympathy or congratulation; this quality in Henry Rowland, this genuine interest in the welfare of others, has given him a special niche in the hearts of those fortunate enough to call him a friend.

His very devotion to duty undoubtedly hastened his end. Still far from well and still needing prolonged rest, he could not remain idle when the poliomyelitis epidemic struck Toronto this summer. With as high as two hundred "polio" patients in his hospital at one time Mr. Rowland personally supervised the arrangements for their care, directing much of the detail, unknown to many of his associates, from a cot in his inner office. With the epidemic now on the wane, one more victim might well be recorded in its wake. *"Alias servians ipsi consumor."* Such devotion to duty, such personal self-sacrifice, fully realizing the possible consequences, typifies for our inspiration the real spirit of him who would serve the sick of humanity.

Kipling's lines to Lord Roberts might have been penned of Henry Rowland:

Clean, simple, kindly, well beloved,
Flawless in faith and fame;
Whom neither ease nor honours moved
A hairsbreadth from his aim.

G. H. A.

The Address of the President American College of Hospital Administrators

HOWARD E. BISHOP, Sayre, Pennsylvania

IT IS not only conventional but probably necessary that the president of any organization review, briefly at least, past accomplishments and offer an outline of future plans, because, after all, we meet but once a year and many of us know too little of the work which has been done and what should be planned for the future.

The Author

● **Howard E. Bishop, one of the best known administrators in the hospital field, is Superintendent of the Robert Packer Hospital and Guthrie Clinic, Sayre, Pennsylvania. Mr. Bishop is President of the American College of Hospital Administrators.**

Our Four Objectives—

At the expense of repetition to many, the objectives of the American College of Hospital Administrators will be reviewed briefly to ascertain if our best efforts are being used to live up to these objectives. The objectives, four in number, are:

1 To elevate the standards of hospital administrators.

We instinctively realize as members of the College that this is our prime object and it is a corollary that needs no amplification—the point is, how are we to bring it about.

2 To establish a standard of competency for hospital administrators.

Here we state one of our real problems and one that was made a special study in order to determine as near as possible just what is a good hospital administrator. The resulting report of the Study Committee was not expected to be complete or final but *was* intended to give us a start on what eventually may be a measuring device by which administrators may be judged and trained.

3 To develop and promote standards of educational training for hospital administrators.

Having determined what the administrator should be, this objective is the next logical step, namely, to train people to fill administrative positions in the hospital field; this is the greatest problem before the College today. We may do a great deal of helpful work for administrators in many ways but this problem of education is fundamental and should merit our continuous study and effort.

4 To educate hospital trustees and the public to understand that the practice of hospital administration calls for special training and experience.

It would seem that if we can do a good job in carrying out the second and third objectives, this fourth objective will automatically take care of itself.

Perhaps this program sounds rather limited but if we can carry out these objectives successfully, an inestimable service will have been rendered, not only to hospital administration, but to our hospitals as well. In this connection let me quote what Dr. Carter said over a year ago because it applies equally today: "We are a young organization and the earlier we begin to work toward our objectives the more rapid will be our progress and the more extensive our field of influence."

It will be noted that the basis of all of the objectives of the American College of Hospital Administrators is education and this educational program is one that requires an expenditure of money without any very apparent return to the individual member. It is often unfortunately so with education along other lines—for instance the unmeasurable part of the bill which our hospitals have paid for nursing education has never been recognized by the public and it has taken a long time for it to be appreciated even by administrators. Is it too much to ask that we should make our contribution toward the uplifting of our own profession by the payment of adequate dues, even though we are not to personally benefit greatly thereby? I think you will agree that we can well afford to do our part!

Presented at the Fourth Annual Convocation of the American College of Hospital Administrators, Atlantic City, September, 12, 1937.

Ever since our organization meeting in Milwaukee four years ago, an effort has been put forth each year to carry out a special piece of work that would be a service not otherwise available, and the excellent work of the Study Committees appointed for this purpose has been greatly appreciated.

The special study during the past year has been that of the Committee on Educational Policies with Dr. MacEachern as chairman and largely prepared by Father Schwitalla. The presentation of the first report of the committee a year ago resulted in what proved to be one of the most interesting hospital meetings that has ever been held, and the fact that the report brought forth a deluge of questions and criticisms, both at the meeting and in correspondence afterward, indicates plainly that the subject is of great interest to administrators. The committee proposed a very ambitious program for the education of the hospital administrator which, at first glance, seemed beyond either the needs or the possibility of accomplishment. However, a closer study and further explanation of this curriculum makes the plan seem more interesting when it is remembered that the setup is suggestive only in many details and subject to change with varying conditions. A start has already been made at the University of Chicago where a graduate course in hospital administration has been offered during the past three years. If we desire to write standards for the preparation of our group, certain definite recommendations are necessary. This is the program our committee is endeavoring to accomplish. It is interesting to note that the Catholic Hospital Association recently passed a resolution supporting our suggested curriculum for the training of hospital administrators.

We all feel the need not only for a standard of competency in hospital administrators, but a standard of education commensurate with the position. We recognize that many of our aids in hospital work are setting educational standards that will soon embarrass us unless we ourselves set standards which our profession demands. If, for instance, the superintendent of nurses or the head dietitian must be a college graduate (and a dietitian cannot be an active member of the American Dietetic Association unless she is a college graduate) we can hardly expect a lesser educational requirement for the administrator himself.

The Curriculum

We must remember that the suggested curriculum is the framework for the education of the future administrators and is not intended to be applied to those now holding hospital positions. The committee further says that they have no thought in advancing this curriculum to supplant present hospital administrators by a newer group. It was thought however, that if the program is accepted, many executives now in the field who desire to advance themselves educationally, will have before them an authoritative and acceptable guide in the selection of courses which they might take in connection with their work and thus be given encouragement and a measure of competent guidance.

The curriculum as suggested includes ample time for practical experience and it is the combination of the academic training with an internship which should serve to supply better administrators.

It is true that most of us have received our hospital training by means of the apprenticeship method and it is also true that for a long time to come hospital administrators will still get their training in the same way, but those who have gone through this process without the combination of academic work with practical experience realize the present deficiencies of the method and its wastefulness in time to the administrator and in cost to the hospital which he represents. This group, more than any other, is in a position to appreciate the value of what a satisfactory standard of competency and satisfactory standards of education for hospital administrators would mean to our hospitals. Many hospital administrators will continue to be taken from the ranks of hospital employees because of the training they have received in a position in the business office or in some technical department as stores or pharmacy, and many of them because of their inherent natural ability, will eventually prove to be capable hospital administrators. This fact in no wise detracts from the need for a standard of education for the administrator which will be needed more than ever in the future because of the ever increasing complexity of problems which confronts the administrator of a modern hospital in his administrative functions. Such administrative functions in the hospital Dr. Michael Davis has defined as "those activities which while not being directly the care of the patient, or research, or teaching are nevertheless essential to the effective performance of these primary functions."

Let me take this opportunity to pay a tribute to Dr. Davis to whom is due great credit for the splendid work he has done toward the education of hospital administrators. He has shown in his work at the University of Chicago that his ideas

on the training of hospital administrators are both practical and workable.

The final report of the Committee on Educational Policies will be presented tomorrow morning when the plan will be more fully discussed than has been possible at this time. We want all fellows and members who have given this subject careful thought, and I am sure every one here has done so, to be present and express his views so that the executive committee may be guided in the course to be pursued in assisting in the training of the administrator.

Institutes for Hospital Administrators

A further aid in the education of present administrators, but one not a part of the report of the committee, which we have been discussing, is the part the College can take in fostering Institutes. It has seemed best not to attempt anything of the kind the past year, but in the ensuing year, with the help of Dr. MacEachern, chairman of this committee, it is hoped that this job may be part of our program. It is not our thought to in any way interfere with the Institute which has been carried out so successfully for several years under the auspices of the American Hospital Association, but to supply the same privileges by inaugurating what Dr. MacLean calls "Refresher Courses" in two or three additional localities, enabling a much larger number of administrators to take advantage of the opportunity which an institute provides.

The College Directory

The executive committee and board of regents at their meetings in February and last month proposed several additionally helpful plans for our members and we already have much of our work for the ensuing year laid out for us. You know of the directory for which the biographical data is now being compiled. You will find this directory of considerable value.

The committee, of which Mr. Melvin L. Sutley is chairman, is preparing a model contract for the use of hospital administrators and this too will be distributed as soon as it is completed.

The Cooperation of Hospitals in Training Administrators

One of the greatest needs today in the training of administrators is to secure the cooperation of a sufficient number of qualified hospitals to give an internship or residency in hospital administration. The first step in securing such cooperation will be to work out a schedule of activities which will lay the groundwork of practical experience for the student. This point has been reached now and it is hoped that a study committee may soon work out such a schedule so our hospitals may determine, after a study of what such a course would require, whether they can undertake in a systematic way the practical training of administrators. The hospitals of Chicago have been doing a good job and much credit is due them for the helpful interest they have taken in the students in hospital administration who have attended the University of Chicago during the time the students are in residence at the University. A few hospitals too, including Grasslands, Massachusetts General, Strong Memorial, Jefferson, and a number of others have accepted these graduates in hospital administration for a year internship. It is encouraging to note from the current issue of *"HOSPITALS"* that the Hospital for Joint Diseases in New York City has inaugurated a one, two, and three year residency in hospital administration. Such courses are vital for practical training in hospital administration and if more hospitals will provide these internships, there will soon be a supply of competent administrators to fill vacancies which develop. The college should use its influence to foster such courses.

It is well to repeat what has been stated previously that the college is working harmoniously with the American Hospital Association. We are really a part of it, for membership in the college is possible only to members of the American Hospital Association. The fact that the office of the college is now located in the American Hospital Association building in Chicago, will no doubt strengthen our friendly relationship.

In discussing the education of the administrator little has been said in reference to our present administrators who may have little opportunity to secure additional educational advantages. To these let us suggest two or three very definite ways of helping themselves and increasing their worth to their hospitals. Above all let us take sufficient time for careful reading of our current hospital literature. All of us are busy administrators and the reading of our hospital journals is often neglected—we cannot afford to do it if we are to keep abreast of the times and be informed on hospital subjects as the administrator of a hospital should be.

Attend all the meetings of national, state, and

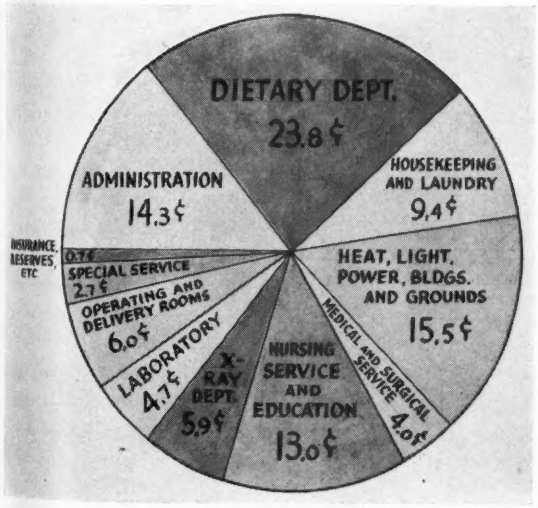
local hospital associations that you possibly can—it is as worth while for your hospital as yourself. Not only attend these meetings but take part in the discussions for there is no better method of broadening your education. The suggestion to attend meetings is not alone mentioned for education, but because such trips are needed to give us vision and courage and to get us out of the rut which we gradually work into when we continually stay at home in our own bailiwick. Distance enables us to realize that the little worries should not occupy the important place they do and distance enables us to view our work in the proper perspective.

There is one more benefit derived from attendance at meetings that is perhaps the most valuable of all and it is the renewing of friendships with other administrators. For twenty-five years I have attended every annual meeting of the American Hospital Association and for several years past the most compelling force to keep me in attendance at these meetings has been the opportunity that it affords to renew the friendships made over this long period. These friendships which are so pleasant are also the source of much helpful information gleaned from the experience of others and acquired from them during these visits.

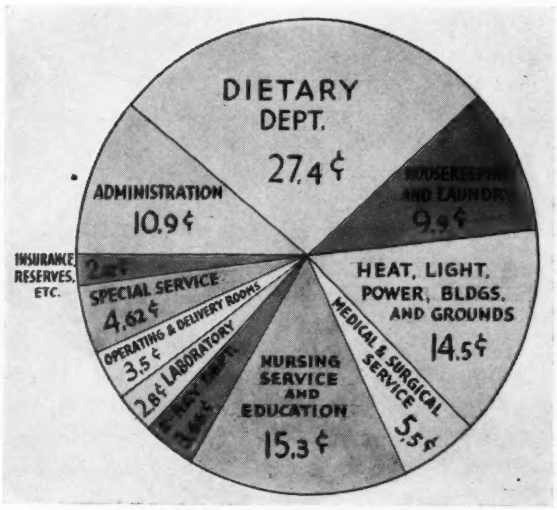
The college owes a great deal to Mr. J. Dewey Lutes who has been our executive secretary during the difficult period of organization. Two years ago Mr. Lutes felt that it was not fair to his hospital to continue as executive secretary but was persuaded to continue. Toward the close of the year we were able to secure the services of Mr. Gerhard Hartman as acting executive secretary, and since the first of July, Mr. Hartman has given full time to the work. With the better opportunity for service which this presents, we look forward to greater accomplishments the coming year.

Good friends in the American College of Hospital Administrators, there is a real need for an organization such as this college represents. A good start has been made but there is much to be done to place the college in a position to warrant the recognition and respect which it must have to work effectively. Your officers ask from you whole-hearted support during the coming year in their united effort to help our hospitals through the elevation of standards for hospital administrators.

The Hospital Operating Dollar



Distribution of the hospital operating dollar in a group of hospitals averaging under 100 patients daily


DIETARY DEPT. 27.4¢
HOUSEKEEPING AND LAUNDRY 9.9¢
ADMINISTRATION 10.9¢
INSURANCE RESERVES, ETC. 2¢
SPECIAL SERVICE 4.62¢
OPERATING & DELIVERY ROOMS 3.5¢
2.8¢ LABORATORY
NURSING SERVICE AND EDUCATION 15.3¢
MEDICAL & SURGICAL SERVICE 5.5¢
HEAT, LIGHT, POWER, BLDGS. AND GROUNDS 14.5¢

Distribution of the hospital operating dollar in hospitals averaging over 100 patients daily

Medical and Hospital Problems

An Address Before The American Hospital Association in Atlantic City

WILLIAM G. HERRMAN, M.D., Asbury Park, New Jersey

I PERSONALLY am enjoying this moment very much—I am going to have an opportunity as a physician to tell our hospital folks some things I have wanted to say for a long time and have either not had the opportunity or the nerve to say them at home.

The outfit with which I went overseas travelled on the Aquitania without convoy. After we had become adjusted to our surroundings and to every nook and cranny in the ship; after we had become accustomed to the closing of all portholes and the dousing of all lights on deck after dark; after we had become tired of running to the fore and aft batteries and talking to the lanky Alabamians who manned the guns, each with a little cross of St. Andrew stuck in the breech-lock; after we had become tired out by running up one flight of stairs and down another in a crazy sort of merry-go-round lifeboat drill, only to find ourselves in the back row of nurses, Colonel Jones finally decided it was time to have a few staff conferences. I will never forget the first. "Gentlemen" Colonel Jones said, "This boat may or may not be sunk by a submarine. If it is, what I have to say will be no concern of yours, but if you land on the other side, you will find a great shortage of materials and that includes hospital materials. Major Grant, who belongs to another outfit on board is going to demonstrate to you how to tie all kinds of intricate knots from very short pieces of suture material. I want you to learn these manipulations, because you will not be able to tie a small knot with a long piece of catgut and throw the ends on the floor." Major Grant then proceeded to demonstrate, with a pair of artery clamps, deep in the folds of a napkin, how to tie all the various surgical knots with pieces of catgut, two to four inches in length. The demonstration made a great impression upon me, which I never forgot. I tell it to you now to illustrate the waste that goes on in every hospital, not only in catgut, but in gauze, in bandages, in drugs, in chemical, in x-ray films, in all of the expensive supplies you know so much more about the cost of than I do. This waste is unnecessary. How can it be eliminated?

Presented before the President's Session, American Hospital Association Convention, Atlantic City, September 13, 1937

The Author

● **William G. Herrman, M.D., is a well known medical economist, and President of the New Jersey State Medical Society.**

Meetings of the Medical Board and Hospital Administration Staff

I have been connected with one of the institutions I serve for eighteen years. During that time I have suggested many times that the medical board and those active in hospital administration have several evening meetings a year—not in the institution—semi-social and semi-business meetings, in which the attending physicians and the hospital management could become better acquainted and could freely and unofficially discuss each other's problems. In too many institutions the medical staff understands all too little the financial and administrative problems which confront the hospital executives. The doctors too, have their hospital problems. If the physician and the hospital administrators understood each other's viewpoint a much better esprit de corps would be established; there would be more attempt to be saving or at least not wasteful; there would be more effort to be sympathetic and cooperative; and the person both serve, in other words the patient, could not help but benefit.

What Makes the Hospital

"Four walls do not a prison make," neither do they make a hospital, no matter how fine the building nor how costly and up-to-date its furnishings. What makes a hospital is the ability, the thoughtfulness, and the care of its personnel, and that means everybody from the sweeper in the basement to the superintendent on the administrative side, and everybody from the nurse on probation to the chief of staff on the medical side. Mary Roberts Rinehart wrote a very thrilling story for the *Saturday Evening Post,* during or shortly

after the war on the exploit of Dr. Harry Kerr of Washington, D. C., now one of the most prominent surgeons in the Capital. Dr. Kerr was a surgeon in my outfit and was ordered with a surgical team to proceed with all haste to Chateau Thierry. On his way he passed a small French chateau upon the grounds of which he saw many French and American wounded. This was a French First Aid Station. The French surgeon was shorthanded, and having been in the war three years was somewhat inured to his task and was making no particular speed. In spite of Dr. Kerr's urgent orders he stopped with his group and raided a nearby school-house. Out of the chairs and tables were made some improvised operating-room furniture; forks and spoons were pounded into retractors; and with a few knives and artery clamps in his medical belt, Dr. Kerr went to work and cleaned up the wounded lying on the lawn. The chauteau was not a hospital, only Harry Kerr's ingenuity saw operating-room materials out of what he had to work with, but by the time he was through, many a wounded man felt he had been in a first class hospital.

The object of both the hospitals and the doctors is the same, yet sometimes their point of view and their means of attaining their end seems antagonistic. When this is so, the chief sufferer is the patient. If the hospital did not exist we would have to go back to the era of barnyard surgery. Many of the greatest advances in both diagnosis and treatment could not be carried out. If it were not for the doctors the hospitals would be only hotels for sick people.

The Staff and the Hospital Should Be Cooperative

Both the hospitals and the medical profession are facing difficult problems these days. During the worst of the depression, both exhibited the true spirit of the good Samaritan—help for the sick and injured was not withheld because of lack of funds to pay for such services and attention. When the income went down, for both the hospitals and the doctors the need for services necessary went up. This has not helped either side to understand the problems of the other but has made it more difficult.

If the staff properly appreciated the hospital side they would not send a patient into the lowest priced room if they believed that patient could afford better accommodations. They would be sparing in their use of materials and in their orders for expensive drugs. They would order x-ray examinations when necessary but not routinely in their ward services. They would not send someone in to the public ward who could pay semi-private rates—they would not send patients to the out-patient department for free diagnostic workups when those patients should be paying a fee—they would try to interest their private patients in making contributions to the institution. There should be developed an esprit de corps equivalent to that which every crack military outfit proudly possesses.

If the position of the medical men were properly appreciated every care would be taken to see that men in the clinics were not treating or examining those who had no right to be there. Surgeons would not be operating without remuneration on ward cases who ought to be in the semi-private division at least, and paying them a moderate fee —diagnostic or therapeutic clinics would not be organized to give service at a fee which could just as well be given in the doctor's office—there would be no competition with the men on the staff who are giving, in their time and service a contribution equal to that of the hospital in the care of ward patients.

The Problem of the Staff and the Hospital Run Parallel

Our problems, after all, are not different—they run parallel—each one finds it difficult to take care of the increasing load, with the decreasing return from the private patient, in this era of lessened philanthropy and high taxes. We cannot let down—we must go on—with mutual understanding and full appreciation of the other's services the burden will be lighter and the respect and support of the public assured.

The Improved Quality of Medical and Hospital Care

The time has come when both hospitals and physicians must give serious thought to the trend in hospital and medical care. While the cost of manufactured articles in common use today has gone down the quality has gone up. The cost of medical and hospital care, however, has gone decidedly upward together with the quality. It is today out of the reach of many people of moderate means unless they are taken care of on at least a semi-charity basis. With the decline in private philanthropy due to the economic depression and the increased taxation the need for government support has come more and more to the front. Unless we wish to meekly acquiesce in becoming institutions and agents of the government we must all give serious thought to the means of providing modern hospital and medical care in a way that will be within the reach of those who are gainfully employed. I can see no way in which this can be done by lowering actual costs. There is entirely too much personal service involved.

This personal service must be given by highly trained people who are entitled to a proper return for their service. The answer, it seems to me, must be along the lines of the insurance principle.

Spreading the Cost of Medical and Hospital Care

We must spread the cost of both medical and hospital care over a number of years and the chance of illness must not be borne by one alone but by a large number. The public is well sold on fire insurance for property and on life insurance for the individual. It ought not to be hard to sell them the idea of insurance against severe illness both from the standpoint of hospital expenses and doctors' fees. Do not take this statement of mine as an endorsement of compulsory health insurance. I am against anything of a compulsory nature. I am against prohibitions of all types. Compulsion, prohibitions, and polemalism are enemies of society. I am in favor of education. A man should voluntarily work for his own support and that of his family and neither he nor his family should be taken care of through the efforts of others.

A Personal View

I believe that physicians should first of all get back of the idea of hospital insurance and actively act as its sales agents. This is not philanthropy. It is common sense. Hospital bills must be paid first. If they are taken care of through an insurance policy the physicians then have some chance of being paid for their services.

The time will come, I venture, when there will also be insurance for medical service. Medical care in this country, I hope, will be preserved on the independent private practitioner basis rather than the physician becoming an employee of the government or of an institution.

The Ontario Hospital Association Convention

The Ontario Hospital Association held its Fourteenth Annual Conference on the twentieth, twenty-first, and twenty-second of October at the Royal York Hotel, Toronto. From the standpoint of attendance and interest, this convention was one of the most successful the association has held.

The excellence of the program attracted to this meeting representatives from every hospital in Ontario, as well as many from neighboring provinces. The total registration exceeded six hundred.

The luncheon meeting on Wednesday, the first day of the convention, was addressed by Basil C. MacLean, M.D., Rochester, New York. The afternoon session was conducted by the Nurses' Section. The following addresses were presented: "Supervision of Nursing Services" by Margaret Conrad, B.A., R.N., Professor of Nursing, Columbia University; "How a Nurse Can Help Control Hospital Costs" by Jessie Wilson, R.N., Superintendent of Memorial Hospital, St. Thomas; and "Physiotherapy and Massage" by R. A. Holmes of the Toronto Western Hospital.

The Thursday morning session was devoted to Women's Aids, with Mrs. O. W. Rhynas in the chair. Ethel Cryderman, Edith F. R. Insole, and Florence H. M. Emory addressed this session.

The speaker at Thursday's luncheon was J. H. Holbrook, M.D., President of the Ontario Hospital Association.

The trustees' session held Thursday afternoon was addressed by G. Harvey Agnew, M.D.; T. C. Routley, M.D., and D. J. Galbraith, M.D.

The annual banquet was held on Thursday evening. The guest orator of the banquet was D. E. Robertson, M.D., chief surgeon of the Hospital for Sick Children, Toronto. Dr. Robertson is an orthopedic surgeon of international reputation. His address was most interesting, and it covered in the main the measures employed in handling the largely increased number of acute poliomyelitis cases due to the recent epidemic in Toronto, together with their after-care. Particular interest was shown in the work of Dr. Robertson and Mr. J. H. W. Bower, superintendent of the Hospital for Sick Children, in providing the necessary splints, braces, and frames for those who had been stricken. One was not only impressed with the great amount of labor and ingenuity which Mr. Bower and his assistants put into the work of manufacturing this equipment in an emergency, but one could readily recognize the value and the utility of the articles manufactured. The accomplishment of the superintendent of the hospital and his assistants was one of the notable achievements in hospital administrative work of the year.

Friday's session was given over to the address on "A Resume of Hospital Legal Cases" by Judge J. A. S. Plouffe; "Hospital Forms" by A. H. Sellers, M.D.; and "Problems Relating to the Cooperation of the Hospital and the Department of Public Health" by C. J. Telfer.

The annual meeting of the Association of Medical Record Librarians of Ontario was held concurrently with the meeting of the Ontario Hospital Association.

Medical House Staff Organization

S. R. D. HEWITT, M.B., Saint John, New Brunswick

NO MATTER how small or large the hospital, I believe it possible to have a plan of administration, or organization, setting forth the lines of traffic or chain of responsibility. Such a plan visualizes very clear and quickly the direction or directions in which the responsibility flows.

For purposes of this paper the terms *Medical house staff, interns, house physicians,* are synonymous.

I do not consider that one can discuss medical house staff organization without some brief reference to the general plan of administration. These plans vary in different hospitals, and will be modified in some way at least by the activity of the organization. Whatever the differences may be, it is essential to have a plan, since any plan, even though not perfect, is better than none. It will at least give some idea as to the method of doing business. The chart shows the plan of administration, or the *Chain of Responsibility,* in the hospital in which I am superintendent. Our hospital has 404 beds, including bassinets, and we find that this plan works out very admirably. As subsequent developments take place it may be necessary to modify it, but in the meantime it is explicit, the heads of departments and their staffs know just how to go about their functions and with whom to deal and altogether it has been eminently suitable to our purposes. I am not submitting it as the ideal outline, but as a plan which has worked satisfactorily where it is in use. It does not show, nor need it show, necessarily, the organization of the visiting medical staff into their various committees, but reference must be made to some, at least, of the latter in discussing medical house staff organization.

Intern Committee of the Visiting Medical Staff

It would appear advisable to have, and we in Canada are rather partial to, a small committee of the visiting medical staff functioning as an intern committee.

Personnel of the Committee. This Committee, numerically, will function well with three members. There is no serious objection to four or five. The personnel should, if possible, be representative of three or four of the major services—for example, medicine, surgery, and obstetrics—and it will be well to have on that committee those who are more inclined to take a deep interest in the interns' welfare professionally, and otherwise be particularly concerned with the calibre of professional work performed by the latter.

Functions of the Intern Committee. These may vary slightly from hospital to hospital in that, for example, the appointment of the interns may be made—

1 Entirely by the intern committee, subject, of course, to the administrative requirements of the hospital

2 May be made by the intern committee and the superintendent, acting in cooperation

3 Made by the superintendent alone

It should be one of the earliest duties of this intern committee to meet with the interns, or house staff, as they arrive—the frequency and method of meeting will depend upon the frequency of new appointments. It should be the duty of the intern committee to see that the newcomers are introduced to their duties, that they are made conversant with the geography of the hospital, that they are introduced to the training school officers and supervisors, the roentgenologist and pathologist, and such other permanent staff of the hospital as would be indicated.

The intern committee, amongst other things, should outline the duties of the medical house staff, present them with the printed regulations of the hospital as they pertain to them, going over these regulations with them so that there cannot be a possibility of any misunderstanding. You will find a few of the instructions utilized by our hospital, which are passed around simply as samples, and, as with our plan of administration, not necessarily as ideal requirements. In this way many questions are answered before they arise.

Organization into Services

The organization into services will depend, I take it, on—

1 The size of the hospital

2 The number of services maintained

The Author

● **S. R. D. Hewitt, M.B., Superintendent of Saint John General Hospital, is one of the leading hospital administrators in Canada, and an authority upon hospital organization.**

Presented before the Public Health Section, American Hospital Association Convention, Atlantic City, September 16, 1937.

SAINT JOHN GENERAL HOSPITAL
PLAN OF ADMINISTRATION
BOARD OF COMMISSIONERS
SUPERINTENDENT
ASSISTANT SUPERINTENDENT
VISITING STAFF
SENIOR RESIDENT
INTERNES
PATHOLOGIST
SUPERINTENDENT OF NURSES
PHYSICAL THERAPY
RADIOLOGIST
RECORDS & LIBRARY
DIETITIAN
1ST ASSISTANT DIETITIAN
2ND ASSISTANT DIETITIAN
PHARMACIST
ACCOUNTANT
GENERAL OFFICE
COLLECTORS
HEAD CLEANER
LAUNDRY FOREMAN
LAUNDRY STAFF
SENIOR ORDERLY
CHIEF ENGINEER
2ND ENGINEER
NIGHT ENGINEER
FIREMEN
HANDYMEN
ELEVATOR OPERATORS
PAINTER
CARPENTER
ELECTRICIAN
ADMITTING OFFICE
OUT-PATIENT DEPARTMENT
SOCIAL SERVICE
ASSISTANTS
CHIEF MAIN KITCHEN
MAIN KITCHEN
SWITCHBOARD
PURCHASING & STORES
MATRON
LINEN ROOM
MAIDS QUARTERS
FLOOR SERVING ROOMS
MALE CLEANERS
ORDERLIES
WARD MAIDS
ASSISTANT SUPERINTENDENT OF NURSES
INSTRUCTRESS
NIGHT SUPERVISOR
ASSISTANT NIGHT SUPERVISOR
NIGHT SPECIALS
NIGHT SENIOR ORDERLY
NIGHT ORDERLIES
PUPIL NURSES
DAY SPECIALS
DIETITANS
DAY SUPERVISORS
MATRON
RESIDENCE HOUSEKEEPER
RESIDENCE HOUSE MAIDS
SEPTEMBER 23, 1935

3 Whether or not the hospital is an open or closed one

4 Whether or not it is a teaching hospital—I am assuming, for purposes of discussion, that the hospital is not a teaching one

5 Depending upon whether or not the hospital serves public as well as private patients

I will not attempt to suggest an outline of services, other than to mention the various services which may be available: medicine, surgery, obstetrics, pediatrics, eye, ear, nose and throat, contagious diseases, out-patient department, and private, including medical and surgical. Surgery and medicine may be sufficiently large to require more than one intern, and it may be a senior house physician or a senior resident of the medical house staff will have an appointment on one particular service for his entire term, or there may be, as with ours, more than one senior appointment. We have one for a year in surgery, and one for a year on combined obstetrics and pediatrics. In both instances there are junior house physicians on these services under the direction of the resident.

The frequency of rotation depends on many factors such as the length of the term being served by the house physician, the number of interns available in any one intern year, and finally, the rotation which appears to offer the most to the intern.

Duties of Medical House Staff

The objects of internship may in general terms be classified as follows:

1 To provide efficient intern service for the patients

2 To provide facilities to enable the intern to further round out his training—it may or may not be intended to develop specialists

We are concerned for the moment with No. 1. This involves prompt visiting and examination of new patients when admitted, and a careful history planned along sensible lines. One might divert for the moment to point out that, inasmuch as the members of the medical house staff invariably come from different medical schools, with the consequent differences in methods of history taking, it might be well for a hospital to adopt a method of their own, applicable to all patients. I do not consider it necessary to go into detail or mention every item of duty devolving upon a house physician or surgeon. Obviously, with particular reference to public service, he should be given a relatively free hand in the matter of treatment, under, of course, adequate and close supervision. I do not mean by that that he should be allowed to do surgery promiscuously at all, nor should he be allowed to do any surgery unless supervised by the surgeon or surgeons on the service to which he is attached, until such time as he may be considered competent to proceed with the simpler types of major surgery without assistance, providing the hospital's medical house organization provides for such development.

The medical house man must, of course, make careful, complete, and methodical physical examinations, and should have available such accessories as should be found in any hospital, namely, ophthalmoscrope, otoscope, laryngeal mirrors, and other like pieces of equipment. Taking blood for Wassermanns, and blood chemistries, the giving of intravenous and intramuscular treatments, lumbar punctures, paracentesis, are among other procedures which should be allocated to the intern.

Again I must point out that this is not to be done in any haphazard fashion.

On the maternity service he should be permitted to deliver as many normal cases as possible, and complicated cases under the direct supervision of the attending obstetrician when, in the judgment of the latter, it is advisable to permit it.

Blood counts and routine urinalyses should be, I feel, required of interns on public service, more particularly where that service provides more or less free care. These same examinations on private patients must be done by the intern in all operative cases admitted out of hours, as it were, when laboratory technicians are ordinarily not available.

At the risk of being monotonous, may I again stress the necessity of supervision of the interns' work in part by the visiting physicians and surgeons on service, to whom interns are directly responsible for their professional duties, and in part by the senior house physician or resident, in instances where there is more than one intern.

Whether general or detailed outline of an intern's duties, reference must be made to such rules and regulations as are compiled and in force by each hospital.

Monthly Reports

Each house physician should be required to make a detailed monthly report to the superintendent of the work carried on during the previous month. A form for this purpose is easily prepared and should provide for the reporting of the activities of the house physician somewhat as follows:

Name .....
Service .....

Number Histories taken.....
Number Operations assisted with.....
First Assistant No. .....
Second Assistant No. .....
Number Operations Performed.....
(To be listed on reverse side)
Number Normal Deliveries attended.....
Number Normal Deliveries performed.....
Number Abnormal Deliveries attended.....
Number Abnormal Deliveries performed.....
(Give list on reverse side)
Number Anesthetics given.....
Details of Type.....
Number Necropsies attended.....

On this, of course, it will be required to enumerate such activities as intravenous work, lumbar punctures, paracentesis, attendance at necropsies, and the many and various activities in which he is engaged.

I mention histories only briefly, and wish to mention progress notes, a very vital part of the patient's record, and I feel that some outline should be made indicating what is to be expected in reference to this important item.

It has been mentioned that the interns are directly responsible to the visiting staff for their professional duties. This involves such frequent contact as is indicated by the cases being cared for, such as urgent necessity for operation, retrograde changes in the patient's condition, and any unusual developments, as well, of course, instruction in a general way.

Meetings With Interns

The intern committee and the superintendent, separately or together, should meet with the intern staff once a month, and frankly I do not know of any excuse why this cannot be. These conferences are productive of considerable value, from both the hospital and the intern standpoint. The hospital can learn how well, for example, the intern likes his work, if he is happy in his location, and if he is obtaining what he expected, within reasonable limits. On the other hand, the hospital can call to their attention various items of importance concerning either the administrative or professional duties.

Patients' Records

Reference has already been made to patients' records, and at this point may I suggest that each record be completed in the record room by the intern the day following the patient's discharge. The methods of doing this will vary in different hospitals, but I would suggest that a simple cover sheet, which can be initiated as an admitting slip, will provide for a resume of previous admission, and as well, a resume of the present or current admission, the latter of particular value in studying records for purposes of a paper.

Case Record Committee

The case record committee, consisting of about three members of the visiting medical staff, appointed annually from amongst their number, is a valuable committee in the organization, and is necessary and advisable as a reviewing body to appraise the patients' records, and incidentally the interns' work.

Cooperation with all those with whom interns have to work is highly essential, while it is equally essential for the hospital to provide outlets for diversion such as tennis courts, or similar pastimes. Do not forget, too, that interns are essentially human; do not expect too much or too little, and remember that you have on your hands perhaps a future member of your visiting medical staff.

Appointing Interns

Finally, I assume one should mention the method of appointing interns. This may be by examination, which will not likely be the case in the majority of hospitals, or by the use of some type of an application form. It is not a bad plan to communicate with the medical schools, after the fall term begins, and to require not only personal data from the prospective intern, but, as well, that he be recommended by the Dean, or Secretary, of his Faculty of Medicine. Such an application form can be in the form of a contract, on which the intern agrees to fulfill his obligations and with that understanding set forth in the application, the Dean or Secretary endorses the application.

There is an increasing tendency, I believe, for medical schools to have their final year students serve a year's internship prior to graduation. In our hospital we have four such interns, and after our short experience—we are now in the second year of this arrangement—we are particularly pleased with this plan. This type of intern still has to obtain his diploma and his license, and hospitals in Canada utilizing such interns are not confronted with the frequent problem of interns moving out when they get some other appointment, or accepting an appointment and then changing for some other some time after they have agreed to come.

Interns are to be encouraged to make investigations where indicated, and to take an active part in the monthly staff meetings, where the work of the staff as a whole is appraised.

Can the Voluntary Hospital Maintain Its Independence?

NELLIE G. BROWN, R.N., Muncie, Indiana

A SMALL BOY fidgets before the fire, pencil now in his mouth, now in his hair, and occasionally in his notebook. His feet now up, now down, with an occasional full roll over. His exasperated father finally asks, "What on earth are you doing?" To which his son replies, "I'm writing a composition on the World and its Contents, but it's most done now."

This boy was in no more difficulty than I have been since this topic was assigned to me. But letters from hospital superintendents who are doctors, from superintendents who are not doctors, from members of boards of trustees, many sessions with two volumes of American Medicine and even an endurance contest at the National Conference of Social Work, led me straight to the familiar conclusion that "There is nothing new under the sun." I am thus forced to act as a Boswell to many Johnsons or a ghost writer for many authors; so to all whose opinions I but represent I give recognition and much gratitude.

Independence

Independence connotes liberty, freedom from support or governance by others, competency and self reliance without restraint; which imply, when applied to the voluntary hospital, both the power and ability to shape its own course, to determine its own relations—freedom to choose its clients, its methods, its procedures, to set its own standards, and to outline its own development, and also carries with it the responsibility for self support; conversely, the absence of these implies coercion, force, imposed control, and supervision from without.

To present this topic implies at the least doubt, at the most fear, lest the present status of the voluntary hospital be altered. What changes do we fear and from what sources do they originate?

Social Change Constant

Social change is inevitably marked by institutional changes for institutions, like the chameleons, invariably take on the color of their surroundings. It is a truism to say that we are living in a period of transition for every age has been one. But the kaleidoscopic activity of the past few years has produced trends which hospitals must recognize and face.

Presented before the Administration Section, American Hospital Association Convention, Atlantic City, September 16, 1937.

The Author

● **Nellie G. Brown, R.N., is Superintendent of the Ball Memorial Hospital, Muncie, Indiana, and her interest in the economic problems of the voluntary hospital has brought her into prominence in the hospital field.**

Changes in Governmental Philosophy

The most striking of these is the acceptance of governmental responsibility for public welfare including support, which is an extension of the policy of federal subsidies for education, roads, agriculture, and other already accepted and well understood services. State and federal aid have been proffered to new groups—the blind, the aged, and a widening children's group; directly affecting the field of hospital action. Grants have been made to semi-private projects in sanitation and agriculture which are additional evidences of governmental activity. Institutions only semi-public in character and in some communities entirely private in their control have been remodeled, clothed, redecorated, provisioned, and refurnished at the partial expense of government.

Standardization Trends

Those tendencies toward centralization of function and standardization programs in society as extended to the voluntary hospital field will demand not only consolidation of existing hospitals but even elimination of others, since standardization tends to reduce all to a common level. The median is the survivor. The voluntary hospital, then, is made apprehensive primarily by the evidences of increasing governmental activity in other social institutions; but governmental activity alone is not sufficient cause for apprehension. It is the knowledge that we have not yet in this democracy learned how to separate government from the evils of partisan political patronage that

gives just cause for concern and should arouse our hospitals to study their situation.

Financial Problems

The second ogre in the path of our voluntary hospital is financial weakness. Philanthropic contributions have decreased, income from endowment funds has dwindled, demands for service at reduced rates have doubled while the costs of supplying care are increasing steadily, boosted between rising prices for staple commodities and developments in medical practice which today demand oxygen and glucose, tomorrow ampoule medication, and the day after respirators and vasculators. The costs *are* rising. The public, too, our clients, are apparently somewhat less inclined to feel responsibility for prompt and diligent attempts to pay the costs of their hospitalization after service has been rendered than before the dark days of 1930. Balancing the budget is becoming for the individual hospital more and more of an acrobatic feat to be achieved by the superintendent wherein exists the temptation to follow governmental example and set up both a regular and an extraordinary budget.

Administrative Problems

The policies of voluntary hospitals in many instances are not conducive to stability. We must admit that too often the governing boards have exercised their freedom to evade their responsibility for social planning and social coöperation, the chief characteristics of their policy being timidity and indecision. Hospitals have been built with insufficient study of existing facilities. Buildings have been added with the same short-sightedness. Funds in the care of hospital boards have been expended with little public accounting. The charitable character of an institution has often served as a cloak for both incompetence and negligence. Superintendents have been selected for various feeble reasons with meager regard for training and business ability. Information concerning the institution, its ideals, its aims, and its accomplishments have been given to the public only in its most unappetizing and indigestible form, the annual report. Hospitals are only timidly exploring the use of legitimate and ethical methods of public education following the lead of business and scientific bodies in the use of radio and the public press. In too few institutions have there been definite policies of labor relations and employee welfare. To ignore these is to invite discontent and lead to demands which may be disastrous. These weaknesses, unchecked, lead to loss of public confidence in the voluntary hospital and the loss of the moral and also financial support which might be available during the years ahead.

New Public Demands on Hospitals

The growth of public health work in its varied forms, a product of this century, has developed in the public consciousness a demand for preventive medical and health services, creating additional tasks. Neither the medical profession as a whole nor hospitals have been active in meeting these new needs. The school-age groups, through city and school health departments are best cared for; but prophylactic treatment, health examinations, dietary advice, and practical instruction and hygienic guidance are given sparingly in busy physicians' offices and, aside from large hospitals having well developed out-patient department, little help is available from the hospital. Our public too has a growing interest and sound knowledge of scientific developments in diagnosis and treatment. More laboratory and x-ray tests and examinations are requested.

Hospital Costs Too High

The belief that hospitalization costs too much is gaining ground. Rightly or wrongly the public feels that way and feeling is more difficult to correct than factual error.

Medical Difficulties

Last, the health of the voluntary hospital is jeopardized by friction and misunderstandings with its medical staff. An alarming tendency for physicians to look upon the hospital as a professional rival is evident. Charges of exploitation are made by one countered by accusations of monopolistic control by the other, while the welfare of the patient, of whom both are guardians, is lost sight of. Open vs. closed staffs, the control of specialization, staff regulation, and extensions of service, are all subjects of controversy.

O Tempora, O Mores!

To present remedies or cure-alls would require the vision of Isaiah and the wisdom of Solomon, neither of which are possessed by your speaker; but certain very obvious suggestions become corollaries to the statements advanced.

Value of Independence

The independence of the voluntary hospital is worth maintaining if history is worth studying and past achievements point toward future developments. The standards of service have been higher in voluntary hospitals than in public institutions. Medical research has developed, experimental changes in administrative practices have been accomplished, the education of nurses, interns, and ancillary workers has been of better type heretofore in private than in public institutions, notwithstanding existing outstanding examples of public work well done. The traditional

relationship of doctor to patient has been better preserved in the voluntary hospital. The spirit of service, that indescribable but almost tangible quality, resides in our voluntary institutions. These are worth a struggle to preserve.

Government Aid

Governmental participation in hospitalization is probably here to stay. The use of local tax funds for the care of the indigent can provide the voluntary hospital with much needed revenue and assistance in carrying the load of community hospitalization, but all such grants should be made only on the basis of cost per diem for definite service rendered to individual patients. Lump sum grants, tax levies, and appropriations to make up deficits all lead directly toward governmental and probably political control. The hand that gives, controls; and there is also an old saying concerning the usefulness of a long-handled spoon when supping with a certain companion.

Unity Necessary

Unity, expressed by active participation in the American Hospital Association which commands national, and indeed international respect, is a bulwark for the voluntary hospital. Hospitals must individually cooperate with governmental agencies and indeed with all agencies in a community, in hospital councils and in surveys to determine fields of work, limitations of practice and to eliminate over-lapping and duplication of function. Improved methods of transportation which make it easy to transport patients considerable distances with speed and safety are likely to encourage hospital consolidation, as in the field of education the little red schoolhouse has been supplanted by the central school. Those diagnostic services desired by practitioners must be made available with as wide a spread as possible at as low a cost as feasible. Is it expecting too much to ask the voluntary hospital to assume community leadership in these movements?

Better Business Methods

Good business methods and careful financial planning and the elimination of waste and extravagance would help many hospitals greatly. Economical and diligent administration is the only answer to rising prices and increasing demands. Pre-payment programs can reach the employed groups, making them able to carry the costs of their care. No expansion and indeed no charity should be undertaken that the hospital is not prepared to finance. But let us not forget that the hospital as a recipient of endowments has as great an appeal as it ever had provided only that those persons able to give and seeking worthy causes are convinced that their money will be well and wisely spent and that the appeal is made with proper emotional color. People still die, leaving only remote heirs and hospitals should be cognizant of these possibilities in their several communities.

Good Publicity

Strong boards, wise policies, and economical and kindly business administration are essential, but a stream of satisfied patients leaving the hospital, and happy and contented employees living in the community are the best publicity a hospital can have. The superintendent may make a fine talk at Rotary, Kiwanis, or Women's Club, but the orderly and janitor must not be able to say, "Oh, Hooey!" when the speech is printed in the local paper.

More Health and Diagnostic Service

To satisfy the demand of the public for more health service, to see that the hospital facilities are available and used by every good physician in the community, to create of the medical staff a group of firm supporters of *their* hospital and to assure patients of wise and adequate treatment is a joint task for physicians and hospital. Working together to this end will minimize differences in opinion and create mutual respect, improve the position of each in the public eye, and enable them to present a united front against all encroachments by politicians, pseudo reformers, and all other "ists."

Summary

From the National Conference of Social Work comes this thought: Voluntary institutions must be retained but their independence, which is after all relative, must be curtailed wherever it leads to overlapping of function, unwise expansion, or bad community relationships. Carefully controlled, the voluntary institution can become the pacemaker, the explorer, the standard bearer in its field. Its program must be flexible, turning over to public agencies those services which are purely public as rapidly as so proven. It can train workers for both the public and private field. As a private agency it can make adjustments more easily and speedily than the public agencies and thus keep in balance with a growing society. This leads to the final conclusion that the voluntary hospital will retain its independence and the control of its own affairs in the extent to which it meets public or social needs, accepts and fulfills its place in community organization, performs high quality work, and above all convinces the medical profession and the public of its value and its integrity.

Red Cross Professional and Volunteer Service in Hospitals

WILLIAM DE KLEINE, M.D., Washington, D. C.

MEDICAL social service is assuming an increasingly important place in hospital organization and other health services. As the social order becomes more complex and life more dependent, a study of the patient's family and social life is frequently as significant as a physical examination. It is one thing to diagnose and prescribe for organic pathology but quite another thing to understand the personality and environmental factors which contribute to the patient's illness; which if left uncorrected make it difficult or impossible to carry out the prescribed treatment.

Physicians know how difficult it is to treat patients satisfactorily if their peace of mind is thwarted by some adverse economic, family, or social situation which interferes with restful sleep, an adequate diet, and a normal attitude toward their associates. Physiologically speaking such persons are sick, to say nothing of the physical pathology for which they consult the doctor. They do not respond readily to treatment nor can they fully recover normal health until these "adverse factors" are adjusted.

When physicians generally begin to look for mental and physiological unbalance in their patients as well as for organic disease then they will demand medical social case investigations as they now do x-ray and other laboratory studies. It is the function of the medical social worker to assist physicians and hospitals in uncovering and correcting these factors.

Disaster Relief

Nowhere is the influence of economic and social adversity more evident than in hospital work in disasters. Here we deal with patients, usually a large number, who are critically ill. They suffer from multilating injuries which require weeks and months of hospital care. They are incapacitated for a long time or may be crippled for life. They may have lost their home and their life savings. There may be dependent families and financial problems. Many patients would be completely overwhelmed by it all were it not for kindly help.

This is not an imaginary picture but actual situations frequently encountered in tornadoes, hurricanes, fires, explosions, and other disasters. With hospitals filled to capacity with this type of patients and unable to carry the financial load, it is not difficult to imagine what would happen to many of them were it not for careful case investigation and efforts to rehabilitate them economically, socially, and mentally as well as physically.

Financial assistance for medical, hospital, and nursing care; providing shelter, food, and clothing during the emergency period; rebuilding homes equipped for living; providing working tools for laboring people; vocational rehabilitation; mental and social readjustment—all have significant health implications. This applies in ordinary civilian practice as well as disaster emergencies. If nothing else, this assistance makes it possible for the sick and injured to take advantage of the best medical care available.

You may consider this as relief work and not medical social service. That is true in part, but its import is medical social nevertheless. Services of that kind are very closely interrelated. Medical social work would achieve a greater degree of success if financial aid were always available for deserving individuals and families who need medical and hospital care. I should add here that where necessary for vocational rehabilitation, family readjustment, and similar problems, trained medical social workers are added to the disaster staff.

There are at present two types of Red Cross services available to hospitals. One is professional medical social work for military hospitals and the other is volunteer recreational work for both military and civilian hospitals. Each has a unique place in hospital organization. There is at present no provision or plan in Red Cross to make social workers available to civilian hospitals.

Medical Social Service

Medical social service in federal hospitals dates back to 1918 when the Surgeon General of the Army requested the assignment of a psychiatric social worker to the hospital for functional neuroses at Plattsburgh, New York. That same year the Navy asked for a social worker in the Chelsea Naval Hospital. This was the beginning

The Author

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of social service in military hospitals. Trained workers were also assigned to veterans' hospitals in the period from 1919 to 1927, after which this function was taken over by the government.

At present the Red Cross maintains medical social units at six Army and ten Navy hospitals, one Naval Dispensary and St. Elizabeth's hospital in Washington, D. C. These units include a total of 65 persons, 32 of whom are professional medical social workers. The other group includes recreation and clerical personnel.

Individuals in charge of medical social work in military hospitals are designated as "Field Directors" in Army and Navy regulations. They are selected and assigned to these positions and their work is supervised and directed by the National Red Cross. As heads of a hospital department they are responsible to the commanding officer and subject to the same discipline and regulations as heads of other departments.

There are certain influences in military life that must be recognized in dealing with service men. Prescribed duties and discipline necessary for the development of an esprit de corps and for effective mass performance tend to direct them into group thinking and action. In addition to having qualities for a successful career in any vocation service men must be able to merge their individuality with that of the group. The fact that they come from urban and rural sections in every part of the country adds to this difficulty. When the prescribed routines and group action are interrupted by illness and hospitalization they often face a difficult period of adjustment.

It is the function of the medical social worker to assemble the social data which may in any way influence the patient's illness, to report them to the physician and, with his approval, work out a plan of social treatment. She interprets to the patient and his family the possible implications of his illness; she solicits his cooperation and through recreational and other helpful procedures makes every effort to help the patient to become adjusted to his condition.

If a service man becomes disabled and has to abandon military life as a career the medical social worker is expected to give him vocational guidance and help him secure proper training for vocational rehabilitation. She is assisted in this by the Red Cross Chapter of the community to which he is returned.

Chapters are expected to help the individual obtain the government benefits due him, to supplement the budget for food, clothing or shelter, and help him to become readjusted in his home and community life. That is a service chapters are obligated to do for veterans, service men, and their dependents.

Follow-up work is most important in disasters and should be equally so in civilian practice. It is particularly significant in fractures; also in pneumonia which is frequently followed with empyema. It insures continuous contact with the patients until they have made as complete recovery as possible. It also admits of earlier dismissal from the hospital. If any abnormality develops they are referred back to the physician. Because field nurses employed in disasters become so thoroughly acquainted with the patients' needs and personalities, and because injuries often need dressings for a long period, follow-up work in disasters is usually done by nurses. In civilian hospitals, however, this is definitely a function of medical social workers.

Hospital and Recreation Corps

Members of a Red Cross Hospital and Recreation Corps who are qualified for volunteer work in hospitals are known as "Gray Ladies," so named originally at Walter Reed Hospital because of their gray uniform. This Corps represents one of several Red Cross volunteer groups; among them staff assistants; the production corps—making clothes, layettes, hospital supplies, etc.; braille—transcribing reading material for the blind; motor transportation; canteen service; home service; and health aids. The latter are volunteer workers who help physicians and nurses by performing clerical and other duties, principally in clinics and hospital wards.

Red Cross chapters are urged to organize this volunteer service when requested in both military and civilian hospitals. In the former these volunteers serve under the supervision of the medical social and recreation workers. In civilian hos pitals which do not employ social workers, they are usually responsible to the superintendent of nurses. They are subject to regulations agreed upon by the hospital and chapter officials.

Their training consists of a course of twelve to fifteen lectures, the subjects for which are outlined by the National Red Cross. The lectures are given at the hospital by the professional staff and chapter executives. The volunteers must also complete a probationary period of service in the hospital under the supervision of the staff member designated by the hospital authorities. The probation period must total 24 hours of work with a minimum of three hours hospital duty per week.

Persons who have completed this course of lectures, passed the examination and whose probation service has been satisfactory, become members of the "Gray Lady" unit. They are then permitted to undertake the non-professional duties for which they are recruited and trained. These vary according to the needs of the hospital.

Suitable forms of recreation are particularly helpful in hospitals where patients have to remain

for a long period. Duties assigned to volunteers may include hostess service in recreation rooms, libraries, and occupational therapy shops; supplying books and magazines; providing group entertainment through lectures, musicales, and theatricals; reading to and writing letters for designated patients; providing motor drives for convalescent patients; shopping and performing other specified services which are helpful to both the patient and the hospital officials.

Gray Ladies know the importance of observing hospital ethics and regulations, the significance of doctor and patient relationship, the importance of guarding confidential information, and the need of good deportment. Persons who repeatedly ignore or violate these standards set for them are dismissed from the Gray Lady Corps by the chapter authorities.

Since the first training course for Red Cross volunteer hospital workers was introduced in 1924 Gray Lady certificates have been awarded to 1,202 persons serving 69 federal hospitals and to 1,169 serving civilian hospitals throughout the country. A total of 546 certificates was issued during the last fiscal year.

Doctor William J. Mayo said: "Perhaps there is no better summing up of the duty of the physician to the patient than the Golden Rule, which should be applied with an understanding of the emotions of the patient as well as those of the family and friends."

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American College of Surgeons

Hospital Standardization Conference

The Hospital Standardization Conference of the American College of Surgeons opened Monday, October 25, and continued through Friday, October 29. The total registration for the conference alone exceeded fifteen hundred. The Association of Medical Records Librarians of North America held its annual meeting concurrently with the Hospital Conference.

The opening session on Monday morning was devoted to the president's address, by Eugene H. Pool, M.D., New York, president of the American College of Surgeons; the report of the 1937 Survey of Hospitals and Official announcement of the Approved List, presented by Malcolm T. MacEachern, M.D., associate director of the College. The remainder of the morning was given over to addresses by Bert W. Caldwell, M.D., Chicago; G. Harvey Agnew, M.D., Toronto, Canada; J. H. J. Upham, M.D., Columbus, Ohio; James H. Means, M.D., Boston; Charles A. Bowers, M.D., Cleveland; and C. Rufus Rorem, Ph.D., Chicago.

The sessions following the Monday morning session were given over to the discussion of general themes by prominent members of hospital staffs and administrators of hospitals. The general themes for the sessions were as follows:

Monday Afternoon—
"The Medical Staff Conference"

Tuesday Morning—
"Clinical Departments of the Hospital—Organization, Direction, Control, Functioning"

Tuesday Afternoon—
"Hospital Personnel Management"

The Tuesday evening session was a joint session of the American College of Surgeons with the Chicago Hospital Association and the Chicago Hospital Council, with Charles H. Schweppe of Chicago, president of the Chicago Hospital Council, in the chair. The general theme of this joint session was "Public Relations."

On Wednesday morning a joint session of the American College of Surgeons with the Association of Record Librarians was held. A general round table was conducted by Robert Jolly.

The sessions on Thursday morning and Thursday afternoon were given over to general round table discussions led by Robert Jolly and R. C. Buerki, M.D.

On Friday, both the morning and afternoon sessions were devoted to demonstrations staged in twenty hospitals in the Chicago metropolitan area. These demonstrations covered every phase of hospital operation.

A most important feature of the conference was the educational and commercial exhibits. The educational exhibits were of particular interest not only to the members of hospitals' professional staffs but to the administrators and other hospital personnel as well. The commercial exhibits occupied every foot of available space on the exhibit floor and were particularly well arranged so as to afford the opportunity of displaying the latest hospital equipment in a most attractive manner.

St. Mary's Hospital, Clarksburg, West Virginia

Opening of the New Unit August 15, 1937

MOST EVENTS lose their interest with the passing of time, but such dimming of lustre cannot be applied to the occasion when, on August 15, 1905, three Sisters of St. Joseph assumed charge of the Harrison County Hospital, Clarksburg, West Virginia, to administer to the suffering members of the wide-spread Brotherhood of Man. The development of the movement was quiet and almost unnoticed. However, the formal opening of the new unit on August 15, 1937, was a tribute to the acumen, ability, and ardor with which the work had progressed during these thirty-two years under the direction of the Sisters of St. Joseph.

● St. Mary's Hospital, Clarksburg, West Virginia, under the direction of the Sisters of St. Joseph, has recently opened its new unit. This article describes a modern architectural arrangement.

With the patient's welfare the chief aim in erecting this modernly designed addition, the new unit is the last word in up-to-date planning and equipment. Simple dignity of line and construction catches the eye of the visitor as he leaves the circular driveway under the spacious portecochere to enter the building. The lobby, insured against draft by a vestibule, creates a sense of

The Main Lobby of St. Mary's Hospital

Central Kitchen

security which every patient sorely needs when entering the hospital for the first time.

Main Office

Privacy is the keynote of the main office. A counter, similar to those used in banks, separates the lobby from the main office and permits the patron to transact business with the executives without annoyance from the passers-by, while telephone and information booths are located just inside the office.

Central Kitchen

Three capital S's have been incorporated into St. Mary's Hospital—Sanitation, Science, and Service. This triple achievement is nowhere more apparent than in the central food kitchen on the ground floor. The general diet is prepared here, where modern inventions enable the hospital to serve one hundred fifty patients and the entire staff with hot food in less than twenty minutes. Foods are prepared on ranges in the center of the room. A large copper hood, directly over the ranges, accumulates all fumes, carrying them high above the roof through a ventilating stack. This precaution against the straying of food odors into any part of the building, is an innovation in hospital science. Taken from the ranges, the food is assembled on a steam table from which it is placed upon trays. Without waste of motion, these trays are then slipped into an electrically heated thermol truck, wheeled into the lift and swiftly delivered into the service kitchens on each floor for final checking before being taken to the patient's room. Stainless steel equipment has been installed throughout the kitchen, an electric dish washing section expedites what is generally conceded to be an onerous task. Salt glazed walls, impervious to grease and moisture, and ten large windows flooding this area with light and ventilation create a cheerful atmosphere in this humble but very necessary department of the institution.

Refrigeration

Adjacent to the kitchen is the storage pantry and refrigeration department. The three refrigeration degrees provide the necessary difference in temperature required for meats, vegetables, and dairy products. A small ice-making machine, electric cutters and peelers mark a long step from the former tedious processes.

Dining Wing

Convenient to the kitchen, for the saving of time and labor, are the dining rooms: The interns', the chaplains', the sisters', and the nurses'. The students' dining room is the largest in the corridor. Opening upon this room is a smaller one for the special nurses and technicians. These two rooms are so constructed that they may be converted into a banquet hall or an auditorium, since the smaller one is on a higher level, and so is adaptable as a rostrum.

Patient's Room

The rubber covered hallway leading to the patient's room stresses the urgency of quiet. The door to the room is forty-five inches wide to allow the operating carriage to be taken into and from the room without any disturbance to the sufferer. The rounded corners eliminate dust-collecting nooks, while the sloped base is a modern guard for walls since it prevents the furnishings from marring the soft plaster which is specially prepared to break the transmission of sound. The door and window are in a direct line opposite the patient, permitting an open position of the door without infringing on the privacy of the occupant and at the same time supplying one hundred per cent of ventilation without the possibility of draft. The standard lavatory in each of the fifty-one rooms enables the nurse to give the patient that time which ordinarily is taken up in securing the materials for ministration. Night lights near the door shed a soft glow over the floor, permitting the nurse to keep strict supervision on the patient all during the night without the switching on and off of the ordinary room light. They also dispel the apprehension with which some patients react to darkness.

Nurse's Station

The nurse's station is located at the intersection of corridors, thus providing unbroken visibility of the hallways extending in three direc-

tions. A desk, equipped with a tiered rack for clinical charts and with telephones for house and outside calls, saves many steps for the busy nurse and conserves that cheer so stimulating to patients and so easily lost through weariness. At this station a direct phone-call communication system between patient and nurse is established. This same microphone enables a convalescent patient to enjoy his favorite radio program without disturbance to his neighbors. Sound proof walls and radio control confine these broadcasts to those patients who wish to hear them.

Operating Suite

The operating suite is approached through an octagon-shaped lobby. Every known precaution against accident and infection is in use in the three major and two minor rooms, the eye, ear, nose and throat room and the chest clinic. The entire suite is installed with explosive proof switches and outlets. Stainless steel panels flush with the walls enclose the radiators to eliminate the possibility of dust collection at this recognized source. Facilities include positive and negative air and an x-ray viewing cabinet. The major operating rooms are furnished with surgical lamps which insure the necessary shadowless operating area. The floors are constructed of terrazzo with metal gird. Soft green tile walls rise six and one-half feet from the floor. The same tone of green is carried out in the upper walls and ceiling. Three tables finished in green are installed in the major rooms. The chest clinic, for the removal of foreign bodies and for other bronchoscopic work as well as the eye, ear, nose and throat clinic are both completely equipped for the delicate ministrations for which they are especially designed. Sterilbrite solution stands with stainless steel basins and glass jars, stainless steel racks, stools, foot-lifts, and Mayo instruments stands leave nothing omitted from the Model 1938 operating room.

The scrub-up room, situated between the two larger operating rooms is fitted with twelve arm-depth sinks. During the scrubbing process the doctor may view the anesthetizing of his patient in the next room through an observation window.

The general sterilizing room and a comfortable lounge, locker, and shower room for doctors as well as a rest room for nurses supply every conceivable need for those whose duties are confined to this very important department.

Sun Deck, Pent House, Chapel

Carrying its modern trend to the highest point of the hospital, the roof boasts of a pent house and sun deck. The sun deck, an ideal spot where convalescent patients may enjoy old Sol's beams, and a view of Greater Clarksburg, has an attractive tile floor and a cyclone fence. The pent house includes a storage place for x-ray films, a gas compartment, and an "apartment" for guinea pigs, rabbits, and other animals used in laboratory experimentation.

One of the Main Operating Rooms

The Chapel on the fourth floor is a long, narrow room of simple dignity. Slender, stained glass windows make other ornamentation altogether unnecessary. It lends itself easily to meditation on the old inspired lesson of St. Paul, "Charity is patient, is kind."

About 15,000 persons of Central West Virginia inspected the new unit of St. Mary's Hospital when it was formally opened on August 15. Mother Aquinas of Wheeling, Superior of the Sisters of St. Joseph, Sister M. de Sales, Superintendent of the Hospital, the Sisters of the Staff, the Medical Staff and the graduate Nurses greeted the callers. These were most ably assisted by the public-spirited men and women who had previously promoted a successful financial campaign.

The new unit which practically represents an entirely new hospital has been built at an outlay of approximately $320,000. It affords the hospital a total of 185 beds and will permit the remodeling of the old building for a nurses' home. Sister M. de Sales, who, as superintendent for many years, has been the motivating spirit in the erection of the new addition, said: "St. Mary's Hospital and its attendant staff wish to express sincere appreciation to the citizens of Clarksburg for the success of the formal opening which surpassed even the fondest expectations."

Should a General Hospital Accept Tuberculosis Patients?

JOHN M. NICKLAS, M.D., Valhalla, New York

I BELIEVE that the question of tuberculosis patients in a general hospital can be best answered by asking: "What is a general hospital and its purpose in the community?" I do not believe it necessary to give the definition of a general hospital nor to indicate what its purpose is in the community. We all know that a hospital, no matter where its responsibilities lie, is usually governed by a board of trustees or a hospital superintendent who has sufficient authority to accept any patient in need of treatment.

Most hospitals, in dealing with the public, have two important responsibilities: one relates to *service* rendered the patient and the other to the maintenance of the hospital upon the yearly *budget* provided. In order to render service, the budget must not only be great enough to allow for capable hospital operation but it must also be flexible enough to provide for the routine general and medical activities as well as new medical advances.

Since 1929 it has been a struggle for hospitals to meet their budget and any extension of service requiring new facilities has had its handicaps. In fact, most hospitals have had to alter their programs, practice thrift beyond all understanding, reduce staff, cut salaries, and search for other sources of income. In the latter, I do not believe that the general hospital has realized all of its opportunities since one of the ways out of these budgetary difficulties, especially with so many vacant beds, would have been to accept any and all patients in need of treatment, regardless of race or creed. In doing this, *it would become a general hospital in fact as well as in name,* thereby providing needed treatment for hundreds of patients, including the tuberculous. At the same time it would have lowered overhead and retained tried and proven personnel, the latter of which often makes the difference between a good or just a fair hospital. If we accept the premise that the general hospital should be one in fact as well as in name, then let us dwell upon some statistics which might form the basis of acceptance of a tuberculous patient into a general hospital.

The greatest cause of death between the ages of 15 and 45 years is tuberculosis. I need not state that these are the ages of greatest economic and biological import and consequently tuberculosis, as a family and community problem, assumes a great social significance. Tuberculosis stands today among the first eight causes of death and disease for all ages. During 1936, over 110,000 new cases were reported, which number represents about one-third of the reportable cases since it is generally known that a large number of tuberculosis cases are never reported.

The provisional figures for tuberculosis deaths in 1936 were 71,075.* Accepting the number of active tuberculosis cases in ratio to deaths as 6 to 1, it is estimated that there would be 426,450 cases in need of treatment, with a known hospitalization of about one-third this number. The standard number of beds required for the treatment of tuberculosis was formerly one bed per death. (See Table I.) More recent estimates place our requirements at not less than two beds per death.[7]

According to the survey of Tuberculosis Hospitals and Sanatoria in the United States by the Council of Medical Education and Hospitals of the American Medical Association, as reported in its Journal on December 7, 1935,[1] there were 471 sanatoria with a bed capacity of 64,997 or 68.3 per cent of the total beds, 740 tuberculosis departments in hospitals with a bed capacity of 28,584 or 30 per cent of the beds and 29 preventoria with a bed capacity of 1,667 or 1.7 per cent of the beds, making a total of 1,240 sanatoria and hospitals and 95,198 beds. (See Table II.) A large number of these beds were in federal and private sanatoria and hospitals. There are also a large number of beds for children. It is estimated that 41 per cent of the total beds are limited in their use because of restrictions placed upon them by the type of tuberculosis service and cost. Granting that the private beds should be included in the

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totals for general use by adults, the number of beds per death would still be about one-half of the total required with present standards.

High Mortality Peaks in Tuberculosis

Further study of the statistics discloses that there are three groups of cases having high mortality peaks in tuberculosis. In all of these groups we find limited tuberculosis bed facilities, but it is especially true of the negro group which has a mortality rate of 155 per 100,000 population. The mortality rate for young women (15 to 25 years) is 63 per 100,000 population, whereas the rate for men in industry (15 to 64 years) is 87 per 100,000 population.[2] As you can note, all of these rates are higher than the existing national mortality rate (55.2 per 100,000) with the negro rate being three times as great. In 1934 we had 21,099 deaths from tuberculosis among negroes.* There were, in this country, in 1935, 104 sanatoria with 3,751 beds and 171 additional hospitals with tuberculosis departments providing additional facilities but no fixed number of beds.[1] This number of beds seems tragic in view of the statistics. twelve thousand beds alone are needed in the South for this negro group.[3]

The lack of beds in the other two groups is somewhat general, although study discloses that there are 10,000 less beds for women than men and in many States there are no facilities provided whatsoever, either for women or men in state or county sanatoria.[1] (See also Tables II. and III.) Where county beds do exist, their use is limited to those counties. Thus we also have a real problem in the care of these two groups.

Study of the general hospital statistics as reported in the sixteenth presentation of Hospital Statistics by the Council on Medical Education and Hospitals of the American Medical Association[4] published in its Journal of March 27, 1937, discloses that in 1936 we had an average occupancy of general hospital beds of 67.5 per cent with the range of occupancy varying from 40 to 70 per cent or more beds. (See Table IV.) With an average vacancy of 32.5 per cent during 1936 representing 130,947 empty beds in general hospitals, one can readily visualize what any reasonable percentage of these beds would have done in the fight against tuberculosis.

Review of Efforts to Promote Hospitalizing Tuberculous Patients in a General Hospital

Let us review the efforts of various leaders and associations fostering the idea that a tuberculous patient should be treated in a general hospital. In 1855, the Channing Home was established in Boston for the care of tuberculous patients. Of more import in 1902, the first general hospital in this country established beds for tuberculous patients in Hartford, Connecticut. Six years later in 1908 at the International Congress on Tuberculosis held in Washington, the matter of hospitalizing a tuberculous patient in a general hospital was formally presented to the Congress by its Committee on Resolutions. This Committee not only recommended the care of tuberculous patients in general hospitals near the patients' homes but in addition urged that all the governments represented at the Congress treat the advanced cases of tuberculosis in general hospitals and the more curable cases in the sanatorium.[5]

Prior to 1908 we had seen the attack against tuberculosis change from sanitation of the environment to bacteriological study and subsequently to education about the cause of the disease following Koch's discovery in 1882, and still later to education about segregation of the disease. The recommendations by the Resolutions Committee, however, represented new moves in the organized campaign against the disease. The segregation program progressed rapidly following the building of the Little Red Cottage at Saranac Lake by Trudeau in 1885 and in the quarter of a century that followed we had not less than fifty public and ninety-eight private sanatoria with total bed capacity of 11,959.

By 1913 great public interest had been aroused about the disease in many states of the Union. In New York State, through the efforts of Dr. Herman Biggs, the State Health Commissioner, Homer Folks of the State Charities Aid Association and others, a commission was appointed by the Governor to study the tuberculosis bed situation. Suffice to state, the report of this commission was later used as a model by many States of the Union and led to an extensive sanatorium building program by many counties and cities of New York State, eventually reaching a total of sixty sanatoria.

The value of the general hospital in tuberculosis segregation was still recognized and at the annual meeting of the National Tuberculosis Association in Washington in 1916, Dr. George Dock of St. Louis discussed at length the treatment of the tuberculous in a general hospital. A resolution was passed at this meeting recommending the treatment of tuberculous patients in general hospitals.

Five years later in 1921 we see the American Medical Association and American Hospital Association successively recommending that general hospitals provide separate wards or rooms for the care of tuberculous patients and that such patients should not be denied admission, at least in

TABLE I
NUMBER AND TYPES OF BEDS WITH DEATHS BY STATES

States	Beds			Total Beds	No. of Deaths	Death Rate	Beds Planned
	Adults	Children	Unassigned				
Alabama	317	36	109	462	1,845	64.4	65
Arizona	1,035	55	428	1,518	1,101	271.2	64
Arkansas	468	88	234	790	1,128	55.8	64
California	4,402	1,130	1,857	7,389	4,618	76.2	502
Colorado	1,740	112	839	2,691	816	76.5	25
Connecticut	1,325	448	142	1,915	677	39.0	304
Delaware	117	66	0	183	125	48.3	60
Dist. of Columbia	300	170	196	666	662	106.9	750
Florida	153	46	131	330	905	55.1	35
Georgia	468	166	651	1,285	1,713	56.0	40
Idaho	24	132	60	216	120	24.7	00
Illinois	3,286	377	1,741	5,404	4,050	51.6	102
Indiana	1,055	302	229	1,586	1,694	49.0	275
Iowa	301	110	570	981	605	23.8	25
Kansas	346	42	183	571	547	29.0	40
Kentucky	837	112	257	1,206	2,065	71.6	50
Louisiana	453	30	570	1,053	1,563	73.7	100
Maine	417	81	78	576	343	40.2	45
Maryland	1,121	174	255	1,550	1,418	84.7	135
Massachusetts	3,690	972	688	5,350	1,898	42.9	150
Michigan	3,575	447	969	4,991	2,100	43.9	100
Minnesota	2,008	174	703	2,885	963	36.5	200
Mississippi	47	...	725	772	1,258	62.6	...
Missouri	1,464	202	384	2,050	2,208	55.8	573
Montana	120	30	110	260	220	41.4	60
Nebraska	227	38	42	307	253	18.5	35
Nevada	...	...	18	18	82	82.0	...
New Hampshire	185	25	20	230	168*	33.5*	20
New Jersey	2,441	655	499	3,595	2,167	50.1	202
New Mexico	926	66	561	1,553	449	106.4	50
New York	10,552	1,884	2,146	14,582	7,640	59.1	1,029
North Carolina	1,776	138	711	2,625	2,096	60.6	90
North Dakota	229	50	62	341	172	24.5	83
Ohio	3,089	723	858	4,670	3,554	52.9	238
Oklahoma	715	113	248	1,076	1,312	51.9	60
Oregon	139	...	483	622	372	36.6	130
Pennsylvania	4,035	822	1,436	6,293	4,705	46.4	269
Rhode Island	428	117	60	605	327	48.0	70
South Carolina	489	94	92	675	1,019	54.8	50
South Dakota	282	...	15	297	251	36.3	...
Tennessee	813	309	451	1,572	2,567	89.6	...
Texas	1,310	240	1,315	2,865	4,212	68.9	75
Utah	32	...	22	54	98	19.0	50
Vermont	127	44	...	171	161	42.4	...
Virginia	1,060	90	275	1,425	1,918	71.8	...
Washington	797	345	389	1,531	822	50.0	53
West Virginia	571	136	142	849	1,005	54.9	229
Wisconsin	1,942	256	299	2,497	1,048	36.0	169
Wyoming	33	...	32	65	35	15.0	50
TOTALS	61,267	11,647	22,284	95,198	70,907	55.2†	6,661

*1935. †Average.

emergency, or for temporary periods because of the character of the disease. At this time the number of public and private hospitals for tuberculous patients was about 430 with a capacity of approximately 56,800 beds.*

By 1936 we had not less than 1,240 tuberculosis sanatoria and hospitals with a capacity of 95,198 beds. 418 of the hospitals were general institutions with a tuberculosis bed capacity of 14,468 largely arranged in private rooms, separate wards and divisions with separate buildings or pavilions. However, this number of hospitals establishing tuberculosis beds seems exceedingly small when we consider that there are 4,207 general hospitals with a large number of Class A American College of Surgeons rated hospitals of 50 to 100 or more beds.

With this relatively small number of hospitals, one is led to ask why the larger number of general hospitals do not elect to carry out the recommendations of their national organization. I believe this can be best answered by the boards of trustees and others associated with the administration of the general hospitals. I might ask if the answer lies in the past decade ghost—phthisiphobia—or has it been due to an actual lack of appreciation of the problem.

In practically all of the hospitals in which temporary or permanent care of tuberculosis has been attempted, the results have been uniformly successful. In fact, the results in such hospitals as Bellevue of New York City, Bay View of Baltimore, University of Ann Arbor and many others including Grasslands Hospital, the general hospital which I have the honor to represent, prove it. The mutual benefits derived by all services have, in most institutions, more than compensated. Public opinion in the communities or counties has been favorable and when any criticism has arisen it was usually from uninformed people.

Reasons Why Tuberculous Patients Should Be Treated in a General Hospital

In order to evaluate the problem further, let us consider some of the reasons why tuberculous patients should be treated in a general hospital. I would say, first and foremost, is the acceptance on humanitarian grounds. The sanatoria in most states are filled to capacity, the majority having long waiting lists of active infectious cases in need of hospitalization and in many other states there are no facilities whatsoever. Considering the origin of hospitals and their purpose in the community, there can be no argument against this reason, especially by the public and non-profit organization hospitals.

Another reason is to allow for the acceptance of the patient early in the treatment of the disease. This not only assists the patient and the community but also the sanatorium until such time as it is able to accept its charge. It tends to prevent extension of the disease, allows for initiation of proper medical procedures early in the treatment and provides a more suitable form of treatment, thereby strengthening the purpose of the hospital in the community.

Then, too, it absorbs a number of far advanced and moribund cases into the general hospital population. This step definitely renders a service to the community inasmuch as the majority of such cases derive no permanent benefit from sanatorium care. Many such patients travel great distances at considerable expense to themselves and the community and occupy beds which could be utilized for more hopeful cases. The more favorable advanced patient can always be transferred to the sanatorium later.

Another argument to advance is that it affords more than a partial salvaging of damaged lives by the sanatorium, thereby allowing it to become a haven for more complete physical rehabilitation. The need of longer periods of treatment has been recognized for years and we see here an opportunity to effectively increase the length of stay of sanatorium patients. The early discharge predisposes to subsequent breakdown and re-admission which are costly, both physically and economically. Even for the minimal case, not less than one year of bed treatment is now deemed necessary.

Most of the registered general hospitals can make provisions to care for tuberculous patients while awaiting admission to the sanatorium, since the usual period of waiting for sanatorium admission ranges from two weeks to two months. This service materially improves the morale of the patients on the waiting lists.

Many sanatoria cannot provide facilities for diagnostic study and specialized treatment which their patients often require. Thus the need for these facilities which the majority of general hospitals can supply. Modern sanatorium construction and development of program has provided these facilities in the larger sanatoria but, as stated, many of the older sanatoria are too small or are so situated as to make it impossible to render such service. It is now generally recognized that the treatment of tuberculosis is no longer that of a chronic disease, therefore tuberculosis services are taking on characteristics of an acute service which requires the most modern equipment and facilities to effectively function. Modern surgical treatment of tuberculosis has made the general hospital in many states an important factor in the treatment of the disease be-

TABLE II
CLASSIFICATION OF TUBERCULOSIS BEDS BY CONTROL BY STATES

States	Sanatoria					Tuberculosis Departments					Preventoria		
	Federal	State	City or Co.	Private	Total	Federal	State	City or Co.	Private	Total	City or Co.	Private	Grand Total
Alabama	0	0	3	1	4	3	4	0	1	8	..	..	12
Arizona	4	0	2	12	18	9	..	3	4	16	..	1	35
Arkansas	0	2	..	..	2	3	2	2	0	7	..	..	9
California	1	..	11	24	36	11	8	22	10	51	3	5	95
Colorado	0	..	..	17	17	3	2	3	9	17	..	..	34
Connecticut	0	5	..	2	7	..	2	3	2	7	..	..	14
Delaware	0	2	..	..	2	..	1	..	..	1	..	1	4
Dist. of Columbia	0	..	2	.	2	4	..	1	2	7	..	..	9
Florida	0	..	2	1	3	2	3	6	3	14	..	2	19
Georgia	0	1	3	1	5	5	2	0	1	8	..	1	14
Idaho	1	..	..	..	1	1	1	0	5	7	..	..	8
Illinois	0	..	19	7	26	6	14	3	13	36	..	1	63
Indiana	0	1	8	..	9	4	7	0	1	12	..	..	21
Iowa	1	1	4	..	6	2	9	0	2	13	..	..	19
Kansas	0	1	2	..	3	4	4	0	9	17	..	..	20
Kentucky	1	1	2	..	4	1	2	2	5	10	..	..	14
Louisiana	0	1	..	2	3	2	4	0	0	6	..	..	9
Maine	0	3	..	1	4	3	3	0	4	10	..	..	14
Maryland	0	4	1	3	8	2	6	0	3	11	..	..	19
Massachusetts	1	4	11	7	23	3	13	9	8	33	..	1	57
Michigan	0	2	13	8	23	2	10	6	7	25	..	1	49
Minnesota	0	1	13	2	16	4	9	1	6	20	1	..	37
Mississippi	0	1	..	1	2	1	2	0	0	3	..	..	5
Missouri	0	1	4	2	7	4	5	7	4	20	..	1	28
Montana	0	1	..	..	1	5	..	1	1	7	..	..	8
Nebraska	0	1	..	..	1	2	1	2	3	8	..	..	9
Nevada	0	..	..	..	0	1	..	3	0	4	..	..	4
New Hampshire	0	1	..	1	2	1	1	0	1	3	..	..	5
New Jersey	0	1	9	6	16	1	4	8	7	20	..	1	37
New Mexico	3	0	..	5	8	8	..	0	8	16	..	..	24
New York	2	4	34	20	60	7	28	19	22	76	2	2	140
North Carolina	1	1	7	14	23	1	3	2	3	9	..	..	32
North Dakota	0	1	..	..	1	2	3	0	3	8	..	..	9
Ohio	0	1	16	4	21	3	13	3	16	35	..	1	57
Oklahoma	2	3	..	1	6	3	4	1	6	14	..	..	20
Oregon	0	2	1	1	4	2	2	1	3	8	..	..	12
Pennsylvania	0	3	5	9	17	5	15	10	26	56	..	1	74
Rhode Island	0	1	..	1	2	1	3	1	1	6	..	1	9
South Carolina	0	1	4	1	6	..	1	1	4	6	..	..	12
South Dakota	0	1	..	..	1	4	..	0	0	4	..	..	5
Tennessee	0	0	3	4	7	2	4	0	4	10	1	..	18
Texas	0	1	2	11	17	5	7	6	7	25	..	..	42
Utah	0	..	..	..	0	2	..	1	2	5	..	..	5
Vermont	0	2	..	..	2	..	..	0	1	1	..	1	4
Virginia	0	3	2	2	7	3	5	1	1	10	..	..	17
Washington	1	0	5	3	9	7	2	2	8	19	..	..	28
West Virginia	0	3	2	2	7	1	4	0	2	7	..	..	14
Wisconsin	0	2	17	2	21	4	5	6	5	20	1	..	42
Wyoming	0	1	..	..	1	2	1	0	1	4	..	..	5
TOTALS	18	65	210	178	471	151	219	136	234	740	8	21	1,240

cause of the lack of the above facilities in the sanatorium.

A good diagnostic service in the general hospital will eliminate cases of mistaken diagnosis from the sanatorium rolls, if patients are accepted from the waiting lists. Such procedure avoids prematurely labelling a patient as being tuberculous, prevents the stigma of sanatorium residence and allows for the necessary treatment of the newly diagnosed disease condition. Approximately 12 per cent of all patients entering sanatoria do so with mistaken diagnosis. Most cities and counties of any size have physicians trained in tuberculosis who can check such cases and where there is no tuberculosis specialist, the sanatorium can supply a member of its staff for attending and consultant purposes.

The acceptance of emergency cases of tuberculosis requiring immediate care and treatment which do not allow for long trips to the sanatorium often means the salvation of the tuberculous patient. Such cases cannot legitimately be refused treatment by local general hospitals. It is readily acknowledged that the nature of the disease and the accompanying complications such as uncontrollable hemorrhage or spontaneous pneumothorax do not allow for travel.

Infectious disease control demands the prompt removal of many patients from the environment of children and other contacts. Effective prophylaxis cannot be initiated in many homes because of poor sanitary conditions, lack of intelligence in application, and for numerous other reasons. In such cases it is not conducive for the patient to be in the home. Most hospitals are equipped to handle infectious disease; in fact, it was for this reason that the general hospital came into being. The technique of tuberculosis prophylaxis does not so materially differ from the handling of other infectious diseases that it cannot be put into effect in the absence of available facilities for tuberculosis cases elsewhere.

Finally, the care of obstetrical cases, also the treatment of gynecological conditions because of the nature of the service, require the use of general hospitals. Few sanatoria are so modern they can provide nurseries for the new born child or facilities for a therapeutic abortion.

General Hospitals Must Be Fitted to Handle All Types of Cases

The following reasons indicate why the general hospital cannot refuse admission to tuberculous patients and demonstrate why general hospitals must be fitted to handle all types of cases:

General hospitals cannot judiciously discriminate against tuberculous patients when other infectious diseases such as typhoid and pneumonia and conditions such as cancer are being treated. This is especially true in states without sufficient public facilities to treat tuberculosis.

All general hospitals admit tuberculosis cases because of mistaken diagnosis and therefore must be qualified to meet the problem. This cannot go unrecognized by administrators and others since the safety of other patients as well as the staff must be considered and proper prophylactic measures instituted. Influenza, typhoid, malaria, pneumonia, contagious diseases such as whooping cough and measles, bronchitis, pleurisy, bronchiectasis, and numerous other diseases may be mistaken for tuberculosis or have complications which are tuberculous in character. Further, breakdowns occur from such predisposing factors as operative procedure and pregnancy, and the patient, under these circumstances, is entitled to the best of study and treatment which his condition requires, at least until transfer can be made. Following two surveys of the incidence of tuberculosis in general hospitals in Wisconsin by Pleyte and Holand, it was reported that from 18 to 24 per cent of the total deaths in the institutions were from tuberculosis.[6]

Unfortunately, many tuberculous patients receive poor treatment in general hospitals. Those who have had tuberculosis treatment elsewhere recognize the failure of the hospital to cope with their care. With the advent of surgery in the treatment of diseases of the chest, recognition of the preceding makes it necessary that the general hospital be prepared to care for tuberculous patients properly.

Admission of tuberculous patients to vacant beds reduces overhead where conditions are compatible. It keeps beds filled at all seasons of the year and aids in equalizing the amount of service, allowing for permanent employment of personnel and in other ways generally improves the status of the hospital.

Better Knowledge of Tuberculosis Leads to Better Diagnoses

Tuberculosis admissions into general hospitals provide interns and pupil nurses with training in the management of such cases, thereby bringing about a more wholesome respect for the disease. It also tends to eliminate much of the fear about tuberculosis existing among administrators, nurses, and doctors. No intern's or nurse's education is complete without training in tuberculosis and this is supported by recent public health statistics and the existing social and economic status of the disease.

The early discovery of tuberculosis among the patients in the hospital and the proper disposition of their cases are important responsibilities. Without reflecting upon the attending and staff physicians, it is reasonable to assume that if said doctors see tuberculous patients daily in the general hospital, they will naturally acquire more interest and knowledge about the disease. The use of the local general hospital also allows for personal contact by the family physician during the difficult early period of accommodation by the patient to a tuberculosis hospital routine.

Hospitals are rapidly becoming public health centers, therefore more than a smattering knowledge about tuberculosis is essential. Tuberculosis clinics have long been established in general hospitals, rendering an invaluable service. Any extension of the service where needed or indicated will further enhance the value of the general hospital to the community. However, unless properly qualified personnel are in attendance, the establishment of a tuberculosis service in the general hospital will do more harm than good.

Objections to Acceptance of Tuberculous Patients by General Hospitals

The presentation of this discussion would not be complete without consideration of some of the objections to acceptance of tuberculous patients by general hospitals. It has been my personal experience that most of the objections raised have not proven valid when carefully studied. I will now quote some of the common objections and give my answers to them:

Tuberculous patients are said to keep other patients away. As a matter of fact, if special rooms, wards or divisions are set aside, a greater sense of security is present among the general hospital patients. Further, we find the usually unsupervised case will not be allowed to remain in contact with other patients until transfer to a sanatorium is made, which situation gave rise to this criticism.

Fresh air and rest are not comparable to that of the sanatorium. This fact can be generally denied since most general hospitals can provide fresh air and rest without making marked structural changes or setting up impracticable service routines. Since the entire cure will not be conducted in the general hospital, the matter of air and rest are supplemental rather than elemental. I offer a converted tuberculosis axiom which I believe holds true here: "It is not where you are treated but how you are treated which counts in tuberculosis."

Proper treatment cannot be obtained. No basis can be found in this criticism since most communities have tuberculosis specialists or a sanatorium staff to call upon. Even where there are no tuberculosis specialists or sanatorium staff this objection has no basis since in the majority of instances the hospital service is far better than that found in the average home. Success of general hospitals is based upon this criterion. It is to be understood that the acceptance of tuberculosis patients in the general hospital is not being recommended to supplant the tuberculosis sanatorium but to supplement temporarily by instituting an early tuberculous routine and by providing absolute rest and segregation of the patient. The affiliation of the local general hospitals with the state, county, or city sanatorium is desirable and possible for most of them, not only for diagnosis, treatment and after-care of tuberculosis patients but also for the training of the general hospital personnel in tuberculosis.

The expense of maintaining a tuberculosis division, ward, or service is too great for a general hospital. This criticism is not well founded since empty beds do not reduce overhead. Private tuberculosis cases in any institutions usually pay their own bills and in many states like New York, the local welfare departments authorize treatment for those unable to pay. Thus empty beds can be kept filled and a constant source of income provided even though it is not so great as normal. The cost of the physical changes are not great and less staff is required for treatment than by the other services.

Exposure of nurses and other employees to tuberculosis is dangerous. This statement is only partially true. Where tuberculosis is unrecognized, the objection must be treated seriously. If the disease is known to exist, proper measures can be devised to protect the personnel but such steps cannot be taken where the disease is not known to exist. Hospitals would have to close their doors if the doctors, nurses, and other personnel did not forego the possibilities of acquiring infection. This has been long accepted as a part of our profession and many have been martyrs to its cause. The incidence of tuberculosis, however, is low in most sanatoria and good general hospitals. Proper examinations, good personal hygiene, and good work facilities definitely decrease the incidence. To me there is no safer place to make contact with any type of disease than in a hospital, since here methods of protection for all are set up. The experience of sanatoria personnel throughout the country seems to belie any extreme hazard in the management of tuberculosis cases under suitable precautions.

General hospitals have no special provisions for care of such cases. I quote here a paragraph from

a memorandum from Dr. Arestad of the American Medical Association, which is apropos: "Since general hospitals will always be called upon to care for tuberculous patients, if only in an emergency capacity, there should be proper means for the segregation of patients and a competent organization to cope with the problem involved. For that reason, it seems logical that most of the general hospitals should establish an isolation department suitable for any type of contagious or infectious disease. Of greatest significance is the fact that the more facilities that are available for tuberculosis hospitalization, whether in sanatoria or general hospitals, the greater will be the number of infectious cases of tuberculosis removed from the community where they otherwise would remain as a dangerous source of infection."

General hospitals lack knowledge regarding management of tuberculosis cases. This seems to reflect upon the definition of a general hospital and the training of its personnel. The implication seems somewhat analogous to the management of a case of pneumonia or scarlet fever in a tuberculosis sanatorium. The management of any case of contagious or infectious disease is not so dissimilar that the necessary methods cannot be applied until consultation by a specialist is obtained and the patient subsequently referred to a sanatorium.

Conclusions

More could be said regarding this subject "Should a general hospital accept tuberculosis patients?" but I will close with the following conclusions:

The practicability of caring for tuberculous patients in general hospitals is no longer a matter of theory.

The treatment of tuberculosis has been proven feasible in a number of general hospitals under suitable conditions.

Local conditions, customs, and the tuberculosis and hospital situation in general will govern the acceptance of such patients.

Local needs should be paramount in governing what is to be done.

The acute need for tuberculosis beds in tuberculosis sanatoria and hospitals is apparent throughout the country and most states are underhospitalized.

There is no substitute for the modern tuberculosis sanatorium, which is equipped, organized, and staffed especially for the care and treatment of tuberculosis in all forms and stages.

General hospitals should assume the responsibilities of a sanatorium by establishing permanent rooms, wards, or divisions for tuberculosis, where there are no existing facilities or where none are contemplated.

All general hospitals should provide some means for the temporary segregation of tuberculous patients and an organization to cope with it, even if only for emergency or mistaken diagnosis cases, where the number of admissions justify.

All general hospitals should establish an isolation department suitable for any type of contagious or infectious disease.

It is unwise to conduct a permanent tuberculosis service in a general hospital unless some members of the medical and nursing staffs are trained in the care and management of tuberculous patients.

The affiliation of general hospitals with the sanatoria, leading to training of the medical and nursing personnel is desirable.

The lack of training in tuberculosis by the general hospital has been one of the greatest contributing factors to the existing tuberculosis morbidity and mortality rates.

The remedy for the general hospital does not lie in excluding tuberculosis cases from its services but in bringing cases to light so that precautions may be taken to prevent spread to other patients as well as the staff.

Finally, when the day comes that tuberculosis is no longer a sanatorium problem and the special hospital is no longer needed, then the general hospital must care for tuberculosis cases.

Finally, in concluding, I would like to recommend, if not considered too presumptuous, that the American Hospital Association, in view of the existing statistics, reaffirm its stand about the treatment of tuberculosis in general hospitals or that it offer another resolution, giving its stand today about this all-important question.

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The Future Significance of Out-Patient Care in the Country's Hospital and Medical Program

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IN opening a discussion at the present time on a subject involving the significance of any service affecting public welfare, one is standing upon dangerous ground. Even with relative safety, it is impossible to say what course or trend the future of hospital practice, or even the future of public health, will take. Without definite leads, one must predict with caution. Of one fact only are we certain—medical care of the public and responsibility to the public for medical care rests largely in the hands of the medical profession and the hospitals. It has been evident to all who are concerned with work in the health field that there is not the spirit of harmony and cooperation which should exist between these two groups. It is further evident that neither group nationally has constructive or forward looking plans which would assure the public that there is a blending of interests such as would lend assurance that the two groups most concerned are working toward any ultimate solution of the medical care problem.

The purpose of this paper is to promote discussion, and to stimulate, if possible, greater interest in and consciousness of this problem and its portents.

Medical Practice

Let us frankly look at the picture of medical practice and its limitations as of today. At present medical practice in the United States is based, to a very large degree, upon (a) the principle that there is free choice of physician; (b) that the personal contact between the patient and his physician is paramount; and (c) that the physician himself is adequately equipped to honestly and faithfully care for the patient and his medical needs and to give the individual the advantages of the best that medical science has to offer. Twenty-five or thirty years ago when the majority of the practitioners of medicine were general practitioners, and when the field of medical knowledge was limited to the scope and abilities of a single practicing physician, these principles were valid. There are none of us who would quarrel with free choice of physician or with the greatest latitude in personal relationship between physician and patient. It, however, goes without question that but a small per cent of physicians throughout the United States are today equipped to competently practice medicine if left entirely to their individual abilities and equipment.

How far then can the individual physician go? During the past twenty-five years, the practice of the individual physician has narrowed itself, particularly in our larger communities, to the practice of one or more of the limited fields of medical care, and it has become necessary that we have the benefit of the opinions of several physicians if a patient is to receive adequate diagnosis and treatment for any major ill, if he is to receive the care to which he is entitled. The patient, therefore, especially in the case of any serious ailment, is no longer an individual problem, but becomes the object of multiple or group effort both in diagnosis and care, though he remain under the guidance of his family physician.

The individual physician can only go as far as permitted by his individual equipment and the diagnostic facilities which he has been able to accumulate. In order to accurately and adequately practice medicine as an individual today each physician would have to own a small, well equipped hospital unit of his own, and be what we might call, for lack of a better title, a general all-around specialist. There is no need to quarrel with this idea.

Physicians become practitioners of medicine not by any logical selection or upon their aptitude as individuals to acquire and practice the art of medical science. The choice of entering the medical profession rests with the individual. He is licensed by written examination at or near the time of his graduation from medical school. In some states a short internship is specified as part of the requirements. He has free choice of location for practice.

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In no state, however, is it necessary that a physician's practice of medicine be supervised by any state or local group either legally or voluntarily or his ability come into question except malpractice be charged. Even admission to his local Medical Societies is largely a routine procedure and there is no guarantee from this membership to practice medicine. There are no states that review his efforts, evaluate what he does, or show interest to the extent that post-graduate work, reading, study, and his effort to improve himself and keep abreast his work are followed. The only exception to this non-check-up rule is that our hospitals do endeavor to appoint only approved and known quantity individuals to staff positions. There are none where machinery is set up with the function of protecting the public against poor and indifferent practice, nor for interval re-evaluation of the individual.

The public, although having free choice of physician, has no real knowledge as to the preparation and training of the physician. Confidence is therefore placed blindly in the physician because no provision is made either by the profession or other agency to assist John Citizen in making an intelligent choice. Cannot the more highly localized and organized groups, with the hospital as the medical center, help in the correction of the problem of better distribution and higher type medical practice. Must we not assure the patient, whether he be an ambulatory patient or a bed patient, of better medical care through organized effort to help unto this, one of his chief problems?

The Hospital

The hospital in recent years has assumed a dual responsibility in that it cares for patients' needs whether they are ambulatory patients or bed patients. The care of bed patients, of course, extends to a very wide range of individuals whom the doctors wish to refer in from their private practice, plus those who are directly the responsibility of the hospital and community. The latter, because of indigency, may be wholly cared for by the hospital and its staff, while they are bed patients, and later ambulatory patients.

The ambulatory group, for which the hospital has gradually taken over responsibility, consists entirely of that section of our population which is medically indigent or near indigent, and that has in consequence become the responsibility of either the taxpayer or the philanthropist. The number of individuals receiving care through philanthropy or voluntary contribution, both lay and medical, is much larger than that receiving tax fund care, as you have just heard in the second section of your committee report.

What is the place and significance of the hospital in this community scheme? The hospital is one of those institutions which has been created in answer to a specific need of the community. It groups all of those facilities which are necessary for better diagnosis and care of the individual patient, and it renders available to the community services which would otherwise not exist in the major portion of our social units. It is, in reality and basically, the center of the group of endeavor to secure better medical care to those in its environs. It stands as an expression of the most modern and scientific endeavor to raise health standards to those served. It should stand also, if properly used, as an educational and research center for the health agencies of the community.

Whom and what should the hospital serve? Its doors should be open to the whole community. Medicine is but one phase of social care called for in proper organized society, and the demands upon its use will vary directly as our social order improves or retrogresses. Communal medical needs are being adequately met in but few communities today, because of too much individualism and too little thought as to coordination of effort. Illness knows no class distinction. While there is a large portion of the population able to meet the cost of medical care, a much larger section must meet it by spread of cost as insurance, or have it met for them by the community.

All medical care, as we know it, resolves itself into the preventive and curative phases. The medical service which is organized to make and enforce rules and regulations governing our sanitation and other phases of daily life, which have a bearing on the health of the individual, and thereby serve to decrease the opportunity for spread of disease, and to promote the supplying of ways and means of eliminating or stamping out of contagion and the means of its communication, deals directly with problems of health, not individual illness. This service, usually a public health organization, should undoubtedly be under government control and should regulate and supervise general health measures, because it works closely with the legal machinery for the protection of the public. Why, however, should this group ever enter into medical practice?

The curative phases of medical care deal with that individual whose health has threatened to or has departed from the normal. Here the private physician or the hospital enters directly into the care of the individual through medical or other services. Private practice of medicine has its limitations, as mentioned above, and is not able unassisted to care for the illness of a larger portion of those who apply to the private office. Al-

though it is difficult to get the medical profession to recognize it as such, there is a considerable hiatus today between adequate private care of the individual and intelligent use of our facilities provided for by the hospital or group care of the individual.

This affects about 20 per cent to 40 per cent of our population. In an attempt to help this group, which is in the main medically indigent, two lines of endeavor open up: (1) The effort of the community through tax levy and voluntary or paid medical contribution of service by physicians; and (2) a voluntary effort on the part of the community and the physicians to care for their medically indigent and near indigent. This is usually done in clinic groups characterized as hospital out-patient services.

Present Amount of Out-patient Service

Last year about 10 per cent of our population registered for such care, and made about an average of 2½ visits per patient to what we call out-patient service. This service will probably draw from 40 per cent of our urban and less of our rural population. Organized out-patient service thus rendered came from over 700 hospital out-patient departments—of which about three-quarters were voluntary institutions.

It must be noted that we have not defined an out-patient to the satisfaction of the statistical group, nor to the satisfaction of those in the hospital world dealing with ambulatory problems. Should not out-patient care include all of those to whom the hospital renders service, whether it be in the curative or diagnostic divisions, as long as no bed care is actually involved? This would be considering the ambulatory care in its larger aspects, and in terms of service more nearly expressing the volume of work which the hospital is doing for the public. All of the statistics bearing on the volume of ambulatory service rendered by hospitals are confused by the fact that there is no real definition of an out-patient, and we are therefore unable to state the volume of such work in the United States.

Philanthropic Organizations

There is one point, however, upon which we have very obvious evidence. The philanthropic organizations in our various communities are rendering a service in addition to that already furnished by government agencies which would substantially more than double the cost of such service if tax monies were provided to support it or were it taken over by any public agency. Today the community concern, independent of the tax payer's effort, is meeting this local problem in a way which keeps the interest local.

The significance of this local interest should not be overlooked when one considers the future possibilities of the development of better medical care to the community. A proper locally supported endeavor with organized community effort, inspired by a philanthropic motive, works to the best interests of the community and leads to the cooperation which is necessary to the success of the movement. It also keeps to a minimum the feeling among the recipients of such benefaction within the community that such assistance is something which is their due and to which they are entitled, rather than something which they should receive with appreciation and without abuse.

In some of our larger cities, where the bulk of the out-patient service as well as the other hospital endeavor is jointly carried out, we find frequently that a combination of tax money contribution to supplement philanthropic effort proves of greatest service for the dollar expended. This is because the incentive of private management is directed to giving the lower unit costs of operation for equal service rendered. There is no doubt but what today group treatment of the medically indigent and near indigent has come to stay, whether it be under some form of taxation, social or community insurance, or a continuation of our present system. The problem which should concern the public is the problem of how maximum returns may be made for minimum expenditure, and how the best medical service can be procured for those in need of that service. It would seem perfectly obvious that the solution of this problem is not wholly economic, but that it lies in the hands of two groups, namely, the hospital and the physician, and the public. The solution depends upon our actions as individuals and as groups—and our endeavor to help the public rather than to immediately help ourselves. The paramount issue is, can we keep local medical care to a local communal problem? We can, but will we?

Make a Careful Study of Your Out-patient Department

A very careful study and survey of what your out-patient department is doing or can do is now in order. How is it functioning and what is its possible value versus its present value to the community? Is your staff educated? Are they giving real service which you can proudly point to as paralleling your inside service? Is it real group service or just a poorly run, inferior general practitioner's effort left to junior men and interns? What have you done to evaluate your local status?

Is your Board familiar with the picture? Can they evaluate it constructively?

Here are some of the services that the hospital can render to ambulatory patients of the community, in addition, perhaps, to those you now maintain. You should carefully consider whether or not they be used to extend your usefulness.

These services may be classified as follows:

Diagnostic

1 In many instances, particularly in chronic cases, a diagnosis may be provided on an indigent or near indigent patient and be returned to his physician for therapy.

2 Group diagnostic efforts may be organized within the out-patient service to assist in diagnosis and outlining of therapy for the near indigent patient, and return him to his physician for care. The physician in such cases would receive a small fee for this therapy service instead of the patient becoming a clinic responsibility.

3 Where the physician is in need of laboratory, x-ray, or other diagnostic procedures, one or more of which would assist him in arriving at an intelligent diagnosis, such service should be furnished by the hospital through the out-patient service for a fee within the means of the patient and the interpretation forwarded directly to the physician in good standing in the community requesting such service. This would assist particularly with the low income group.

4 Special problems, and particularly in teaching institutions, difficult diagnosis and therapy may lead to the patient remaining under out-patient care, whether he is able to pay a small fee to the physician or not, because the rehabilitation of the patient is more important than a small medical fee, and teaching permission on the part of the patient should enter into our calculation with him.

Treatment

1 Routine treatment in the out-patient department should be kept to the minimum, and largely confined to well organized out-patient services, with adequate facilities available.

2 Special therapies and limited services, which are centered in the hospital and not found elsewhere in the community, should be open to the physicians of the community in the same way as the diagnostic service mentioned above.

3 Assistance should be given to the public health and other agencies of the community in the care of contagious, venereal, and other diseases.

4 All possible assistance which can be given without abuse to the health agencies of the community should be rendered.

5 A definite educational program in connection with the above, together with correlation of the community needs and the education and cooperation of your medical staff, should be a definite part of your program.

With the hospital as the medical center of the community, with the concentration of the facilities for the practice of scientific medicine, with the needs of group consultation practically in those groups where economically they cannot afford the expense of private individual care, we must have our organizations so geared and our efforts so coordinated that the public may get the best we have to offer. All of us know that the best is available only through properly organized unselfish group contribution to this problem. Are we willing and are we ready to meet it, or will our own selfish individual economic concern lead to a compulsory insurance and a regimentation of medical effort? We have in our hands the weapons. Are we willing to tighten our belts and fight to this end?

Care of Indigents

The group care of indigents and of the near indigent groups, whether in out-patient departments of hospitals or otherwise, is with us to stay. How shall we behave to this communal demand as hospitals and as physicians? The proper care of the ambulatory patient is an instrument now in our hands with which we may stay the threat of extra-community interference. Are we to go on drifting, or shall we fight through? Remember that particularly in the voluntary hospital field your decision affects the whole hospital service as well as the out-patient department. Evaluate your position.

The hospital and its out-patient department are with us to stay and in the pages of the New York Hospital Survey, recently made, we find this:

"In the light of expanding knowledge in medical science, the hospital is an indispensable public utility, because of the wide variety of resources of diagnosis and treatment it offers. For that reason the organized care of the sick, a generation hence, will best be provided by the orderly growth and coordination of present facilities."

Thus plainly the future of the out-patient service is a community problem in the hands of the hospital and medical profession to guide and direct.

Report of Study on Relations of Hospitals and Radiologists

American Hospital Association Council on Professional Practice

IN VIEW of current discussions on the organization and finances of x-ray departments, the Council thought it would be well to collect facts showing the existing arrangements between radiologists and hospitals and other relevant matters concerning x-ray services. A number of relevant facts which it would be desirable to ascertain were suggested. It was found that through the cooperation of the American College of Surgeons, certain facts could be immediately secured without special questionnaires, and in the spring of 1936 it was decided to collect and tabulate these as promptly as possible.

On the report forms which are filled out by the representatives of the American College of Surgeons who visit the hospitals in the field, certain information concerning the x-ray department is furnished for a large number of hospitals. The authorities of the College were willing to have this information tabulated with the understanding that it would not be used in any way that would reveal facts concerning any individual hospital. The Council is greatly indebted to the American College of Surgeons for its full and courteous cooperation in this matter.

From the forms in the office of the College, information was taken off on cards showing whether or not the hospital had an x-ray department, who owned the x-ray equipment, and the nature of the contract between the radiologist and the hospital. Two students in the graduate course of hospital administration of the University of Chicago did transcripts and made the initial tabulations, under superivision of the members of the Council. The facts ascertained are reported in the following statements.

Out of some 2,700 hospitals reporting to the College of Surgeons in 1936, 68 (or slightly less than 3 per cent) reported no x-ray department. Of the 2,629 hospitals reporting an x-ray department, there were 773 which did not fill out in their report any answer to the question, "Who owns your x-ray equipment?" However, 1,856 hospitals did answer this question, 1,745 stating that the x-ray equipment was owned by the hospital, and 111 stating that it was owned by the radiologist. In other words, 94 per cent of the hospitals giving information on this point owned the x-ray equipment.

The second main point on which information was secured concerned the nature of the financial arrangements between the radiologists and the hospitals. The question asked on the form is, "What is the nature of the contract between the radiologist and hospital?" This question was answered by 1,571 hospitals. The answers fell under the following headings:

I	Radiologist on salary (full or part time)	751	(47%)
II	Radiologist receiving per cent of income (without other specification)	56	(3.5%)
	IIa. Per cent of *net* income, specified	192	(12.2%)
	IIb. Percent of *net* income, unspecified	395	(24.4%)
III	Concession or rental	104	(6.6%)
IV	No payment made by hospital to radiologist	73	(4.8%)

It will be seen that a salary basis is the most frequent form of arrangement reported; that a percentage of the income, usually the net income, is next most frequent.

The reports have been further classified in terms of the type and size of hospitals and the size of the cities in which hospitals are located. In general, it is found that the proportion of salary arrangements increases with the size of the hospital. Thus, with hospitals of 250 beds and over, 71 per cent of the 354 hospitals of this size reporting had a salary arrangement with their radiologists. With hospitals of between 100 and 250 beds, 48 per cent of the 629 hospitals reported a salary basis. With the 334 hospitals of between 50 and 100 beds reporting, the proportion was 40 per cent. With hospitals of between 25 and 50 beds, a large proportion did not answer the question at all, so that the responses are hardly significant; of the 174 responding, 35 per cent reported a salary basis.

When the figures are classified as to size of cities, the responses, as would be expected, run like those reported concerning size of hospital. The proportion of arrangements on a salary basis runs 76 per cent of the reporting hospitals in cities of over a million, 59 per cent in cities between 500,000 and a million, and then down to 34 per cent in cities of from 10,000 to 25,000.

The non-governmental, non-profit hospitals report 45 per cent of their x-ray departments to be on a salary basis, whereas the governmental hospitals report 62 per cent.

In all cases, a percentage of net income is the next most frequent arrangement after the salary basis. The concession or rental basis is much less frequent, and those reporting no payment of income to the radiologists are still fewer. It may be that some of the reports of no payment imply that the radiologist is permitted to charge a fee to individual private patients, but there is no information on this point.

The Council reports this information to the American Hospital Association and recommends that it be published in the Journal of the Association. Other factual studies which will bring out the existing situation in the x-ray departments of various types of hospitals are likely to be useful to hospitals and to radiologists and should be pursued.

Robin C. Buerki, M.D., Chairman

Personnel—Reduction of Labor Turnover

The first consideration in connection with personnel is its selection. A primary qualification for employment in a hospital is a warm personality which will win the confidence of the patient.

The patient must be made to feel that he is in safe hands, that he is in friendly and sympathetic hands, and that no detail which will in any way contribute to his comfort and well-being will be neglected in the slightest degree. This can be accomplished by a carefully planned and consistently executed training of all personnel in the best means of securing this much desired result. Such a campaign must begin with the elimination of all evidence of friction or lack of active cooperation among the employees themselves. Symptoms of internal disorder are instantly noted by the observant patient or visitor and tend to destroy confidence in the management of the institution.

Employees must at all times comport themselves with dignity, with courtesy, and with consideration for each other, and must at all times manifest a spirit of friendly cooperation and teamwork. Such troubles as do arise must be settled within the hospital family. The development of a genuine family spirit is of great importance. A frank talk by the superintendent when admitting new members into the family by way of employment of new personnel is decidedly worth while. If it is not practical for the superintendent to do this, a department head may do so provided the department head really does talk fully and frankly about the development of a family spirit. Trouble-makers must be eliminated. The philosophy of the proverbial Irishman who "loved peace so well he was willing to fight for it" was perfectly sound.

Particular attention must be paid to the selection of persons who meet the public, such as telephone operators, office workers, etc. It is necessary that these persons have a sympathetic attitude towards patients and patients' relatives who may be in distress, and that they have a pleasing personality; even the quality of voice and manner of speech must be considered. The qualifications of an applicant for any hospital position should be looked into with great care. Certainly, positions requiring technical knowledge and skill must be filled by properly qualified persons. In addition, they should give evidence of a capacity for loyalty. Loyalty is of paramount importance in the entire membership of the hospital family or personnel, loyalty to the hospital at all times, as well as loyalty to each other.

How are we going to keep the hospital family happy and contented, and thus in a large measure reduce labor turnover? I do not know or pretend to know all of the answers to this large question, but I know that if the personnel is made to feel that the administrator has the best interest of his co-workers at heart and has shown concrete evidence of this, he will not have a great deal of trouble keeping peace and harmony in the family.

Individual employees should have ready access to their immediate superiors as well as to the administrator for the discussion of reasonable complaints and problems. After a reasonable probation period, every worker should be given a sense of security in his or her position. Promotion should be made when possible from within the organization. The pay should be comparable to industry or as nearly so as possible. Someone has suggested that in each hospital there should be a personnel director having direct charge of employment, subject of course to the administrative officer. Personally, I do not agree with this proposition for hospitals under 200-bed capacity. Possibly this would be a good scheme for some of our larger metropolitan hospitals. I have not tried to list or catalog all of the factors in connection with the employment of personnel, nor have I tried to cover every phase of the subject.

In conclusion, I wish to state that the practice of the Golden Rule in relationship to the patients and personnel in our hospitals will go a long way toward the Reduction of Labor Turnover.

L. R. Robbins, Scranton, Pennsylvania

Group Hospitalization from the Medical Man's Point of View

CARL F. VOHS, M.D., St. Louis, Missouri

THE present methods of providing medical services; of paying for them; of utilizing social service personnel; of financing, constructing and operating hospitals; of carrying out public health activities; of educating practitioners; in short, the whole group of arrangements and devices through which the science of medical knowledge is translated into services is a result of generations of growth. No one person and no one group of persons planned the present conditions nor can be held responsible for them. They are not the creation of medical men alone, but of physicians, hospital trustees, and superintendents, health officers, educators, philanthropists, industrial employees and employers, and government officials. All have contributed their share in the creation of the chaotic picture that presents itself to us today. Our obligations are mutual and the solution of our problems must be upon a mutual basis.

Up to the time that the "New Deal" was inaugurated, there was a definite lag in all social advance. In medicine, we are today fifty years ahead in the *science* of medicine as contrasted with the *practice* of medicine.

No development in the field of medical economics, with the exception perhaps of sickness insurance and state medicine, has aroused more interest and discussion than has group hospitalization, or prepayment plans for hospital care.

During the recent economic depression, hospital income from endowment and voluntary contributions was decreased by about two-thirds, the charity load was increased almost four-fold, and huge obligations growing out of capital investment or fixed costs were not met.

Under such existing conditions it was only natural that superintendents, lay boards of hospitals, and in some instances the medical profession, should seek some method whereby the major item of illness costs might be more conveniently met by the great mass of American people. The method chosen by a great many communities was the prepayment plan known as group hospitalization. Much credit is due the little group of pioneers at Baylor University in Texas who had the courage to bring forth in the face of many obstacles an untried plan; other cities and communities capitalized on the experience of the early years of operation and have added to the stability, efficiency, and increased confidence in the plans as they are presented to the people today. There seems to be little doubt that under proper administration and organized on certain principles, group hospitalization will meet with the approval of all concerned. For many years there have been serious discussions among physicians and hospital administrators concerning the most equitable arrangement for anesthesia; clinical pathology; radiology and other special medical services in hospitals. If group hospitalization plans show a distinct tendency to place hospitals in the field of medical practice they cannot expect the support of organized medicine. Plans confining their benefits strictly to hospital facilities or to those services acceptable to the local Medical Society would avoid any undesirable disturbance in the field of medical practice, and would not impair the value of the plan as a method of assisting persons with limited incomes to receive good hospital care.

Presented before the Group Hospitalization Section, American Hospital Association Convention, Atlantic City, September 14, 1937.

The Author

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Important Factors in Establishing Hospitalization Plans

In taking into consideration the difficulties that lie in the path of establishing group hospitalization plans, the following factors may be considered as important:

1 The hospital administrators, organizers, and physicians of a community, together with representatives of the public must determine first, whether a prepayment plan for hospitalization is needed in the community and upon what basis it would be practical.

2 Group hospitalization plans should not presume to provide hospital services for the indigent nor is it intended that they should. However, group hospitalization can and should aid the community and the allied health interests that are striving to provide adequate medical care for the people in an interpretive and educational manner. Group hospitalization, therefore, should be an integral unit in any medical economics plan that is set up to reach ALL income groups.

3 In their very essence, group hospitalization plans must be flexible enough to meet changing conditions and develop along lines that will be conducive to coöperation in national and state government plans to make available medical care to all the recipients of benefits in the Social Security Program.

4 Sound procedure in the development of any hospital service plan for a community must, of course, be followed. Not only must sound business practice be of paramount importance, but the kind and standard of service to be delivered should be collateral to the best interests of the community and the high standard of ethics of the medical profession.

5 Many group hospitalization plans were inaugurated in their respective communities with the approval of their local Medical Society, while in one or two instances the medical profession had the honor of inaugurating a hospital service plan. In those instances where the plan did not receive the full coöperation of the medical profession, the reason has been obvious; the plans transcended the ethics of the American Medical Association in respect to the delivery and practice of medicine. No plan can hope to succeed in its services to the community and its members, if they invite the opposition of organized medicine by the inclusion of services which are detrimental to the best interests of the patient.

6 Hospital service plans which do not fit the need of the community and that do not have the full coöperation of the medical profession, the public, and all eligible hospitals, *cannot survive*. In fact, such plans will not serve the best interests of the public nor will they be consistent with the high ideals and ethics of the medical profession and hospitals. Far better that such plans were never inaugurated. Fortunately, the great majority of the present hospitalization plans have started with the objective of meeting a definite social need in the community. The better plans were not placed into operation as an added means or a new method of financing hospitals—worthy as this may be. Nor do I agree with some individuals that hospital service plans should receive preferential rates from their participating member hospitals. The hospitals must be paid a fair per diem rate and this can be readily agreed upon where there is complete coöperation between civic leaders, hospital trustees, and the medical profession.

If group hospitalization plans have failed in the past in any community or if they may fail in the future, it is not too broad a statement to say that such failures will be attributable to improper organization, untrained personnel, and most probably, high pressure salesmanship on the part of a selfish promoter. The better plans have already proven that group hospital service organizations can be operated with an administrative cost as low as 8 per cent after the second year.

Officially or unofficially, both the American Medical Association and the American Hospital Association can say quite definitely which plans are ethical and which are unethical. The recent formation of a special section under the American Hospital Association for Hospital Service Plans is unquestionably a forward step. It seems to me that it not only offers a splendid opportunity for the exchange of ideas, but it also provides an opportunity to gather comparable statistics. Statistics in comparison cannot be conclusive, nor can they be logical if these statistics cover too wide a field by accepting and including experiences of single hospital plans, college student service, or mutual benefit association figures. Just because the common denominator of various contributory insurance schemes is the "prepayment idea," there is little basis for believing them to be identical, either in operation or in results. In all probability the Group Hospital Service Section, under the guidance of the American Hospital Association, will develop sound procedure in proper order and a code of ethics which will have the approbation of not only the American Hospital Association but also the American Medical Association, which is so vitally concerned in the people who are your members and our patients.

Premium Costs and Reserve Funds

Authorities on Hospital Service Plans have more or less based their conclusion for morbidity incidence and the consequent establishment of premium costs on the fact that 10 per cent of their members will be hospitalized for an average stay of ten days; in other words, allowing one

patient day per member per year. Most plans have found this adequate; however, many of the executives of the larger plans are striving to set up very definite safeguards for such contingencies as *catastrophies* and *epidemics*.

Adequate reserves are necessary, of course, but the responsibility of serving members of Hospital Service Plans should not be shunted completely and wholly on the shoulders of the plans themselves. It has never been the belief that such plans were to assume the position of private insurance companies in respect to the communities' hospitals. The hospitals must face with equal responsibility the provision of good hospitalization if some unfortunate community be visited with a catastrophy or epidemic. However, with the establishment of a reasonable reserve, there can follow greater services to the members.

The plans which have been operated successfully for a period of three or four years or more, have shown that they have reserves in excess of that major weakness in those plans which are started without community backing. They cannot possibly be expected to start from "scratch" and pay organization expenses, perform community educational work, and build an adequate reserve right from the very beginning. It is my understanding that the Section on Hospital Service Plans of the American Hospital Association is at this time considering measures which will provide for this and other contingencies. It may be that the principle of re-insurance might be utilized just as is practiced today by the leading insurance companies of our country.

What has just been said should not be misinterpreted to mean that plans can ignore the necessity of having reserves. The reference is mainly to huge reserves which might be used primarily to meet community disasters. The community through the hospitals is equally responsible. The establishment of some reserve is needed to cope with other situations which will arise as the public becomes better educated to this method of protection.

During the early periods of rapid membership growth, a low morbidity rate can be expected. However, as the membership grows older and it becomes more difficult to obtain new members in groups large enough to avoid adverse selection, an increase in the number of persons hospitalized and in the costs of their hospitalization is probable. If such developments occur, those plans which have ignored the establishment of reserves will be in a particularly hazardous position.

After providing an adequate reserve, the first benefit to be considered should be the extension of membership to the dependents of the subscriber. Several plans in the country today have made tremendous strides, and they are serving their community in a manner that is the envy of business executives and of outstanding insurance authorities. After the establishment of benefits for the family, a reasonable amount of the accumulated surplus can then be considered for the extension of further benefits. It seems reasonable to believe that some day a practical method will be devised to provide for nursing service and for pharmaceutical products of a limited nature. It probably is not visionary at this date to prophesy that hospital service plans and their participating member hospitals will eventually establish convalescent homes for their members, in addition to providing accommodations for isolation cases.

The Ethical Hospital Service Plan Will Receive Cooperation of the Doctors

The medical profession has little trepidation concerning hospital service plans which do not violate the ethics and principles of American medicine. Instead, they welcome this adjunct of service to their patients. Hospital service plans reduce for the patient any financial worry which so frequently retards recovery. The doctor can more readily refer the patient to the hospital, for after all, it is in our great scientific hospitals that the best care can be given the afflicted. The doctor can with more facility see his patients and in this way reduce the costs of medical attention. Nor is it too crass to take cognizance of the fact that the patient without a hospital bill to pay can more readily meet the expense of medical fees. This might even be carried further; it is an established fact that too many patients today are turning to self administration of questionable nostrums; too many are not calling their family practitioner for competent medical advice and the reason—because they still owe for the last baby or last operation and are ashamed to admit to the doctor that they have been able to budget for many things but not for their health. Coöperation and fair play is expected of the physician. Because a patient has availed himself of group hospitalization protection, it should not be a signal to charge fees which are not commensurate with the ability to pay. Group hospitalization is not the panacea for all the patients' ills and shortcomings, but in time its educational and interpretive service may prove to be of even greater help to humanity than its actual care of members.

Group hospitalization has had an auspicious start and the medical profession, together with the community in general, expects and hopes to receive much good in the future, but unfortu-

nately, there are and will be limitations. There will still have to be a Medical Economics Plan which will increase the efficiency of the delivery of medical, dental, and hospital care for all people, regardless of their income status.

New Fields of Service May Develop

It may be some time before group hospital service plans can safely work out a method to enroll practically all those desiring such protection. It is obvious that administrative costs and adverse selection are major reasons which preclude the extension of this service to individuals, and not just through groups at their place of employment. The Medical Societies throughout our land have been experimenting for years to develop a thoroughly ethical and sound method whereby those in the limited and low income bracket might be better served in matters relating to health.

Hospital Service Plans can and might be an important factor in aiding the development of plans to provide medical and dental care which will not violate nor disturb the relationship between doctor and patient. It is an admitted fact that hospital service plans, as a rule, do not reach those of very low income, and certainly not the indigent.

Group hospitalization might eventually be part of a well coordinated program which would arrange for the payment of medical, dental, and hospital bills on a post-payment basis for those lacking membership in the service plan. In communities where there are a number of hospitals supported by a local community chest, it will likewise prove practical to coordinate their admitting service. A number of large cities have already placed this plan in effect and with very satisfactory results. For this to be brought about, it will call for real community coöperation; the natural selfishness of individual institutions must be subjugated to the best interest of the community at large. The formation of Community Chests was a forward step in conserving the resources for community help which were contributed by thousands of wage earners to aid those less fortunate than themselves. Therefore, a coördination of existing resources is far more desirable and unquestionably more practical, than the establishment of any new and unworked scheme for the provision of better medical services and better hospital care to our people.

The bibliography of history is frequently referred to by relating to—The Ice Age, Stone Age, Steel Age, etc., and I believe the last twenty years might be classified as the Scientific Age. That brings us to the present—could it not be called one of "Social Consciousness"? The present administration of our federal government has already indicated that the next matters for pertinent consideration are the maternal and child welfare programs, as well as a determined effort by the Department of Public Health to eradicate the scurge of syphilis. All of this is most worthwhile provided too many visionaries do not attempt to give to the less fortunate a mess of porridge; pseudo philanthropists and impractical bureaucrats who are supported by contributions of taxpayers but still feel that they have the God-given right to be wasteful, not only with other people's money but with other people's services as well.

There can be and will be coördinated community plans for the conservation of the resources contributed by its people for the delivery of *good* and not just adequate medical, dental, and hospital care.

Conclusion

In conclusion, it can be stated briefly that organized medicine can coöperate in the establishment of group hospital service plans provided these elements are made a part of such plans.

1 It must be non-profit and provide for voluntary enrollment.
2 Exclude all medical services.
3 Safeguard the right of free choice of doctor and hospital.
4 Fit the needs of the community as recommended by the local Medical Society and the hospitals.
5 Conform to the tenets of the American Medical Association and American Hospital Association as they relate to any prepayment plan.
6 Provide adequate representation of the medical profession and the hospitals on the governing board.
7 Embrace all eligible hospitals in the territory served.
8 Adhere to an equitable criteria of the Hospital Service Section of the American Hospital Association.
9 Periodically publish audited financial reports.
10 Provide sound supervision through state regulatory laws; bonded employees and preclude commission or bonus payments to anyone.
11 Hospital Service Plans should be an integral part of a community or state medical economics program and, as such, they can best serve the people. The hospitals will then remain traditionally institutions of charity and humanitarianism.

American College of Hospital Administrators

Educational Program for Hospital Administrators

IN view of the interest being shown in Institutes for Hospital Administrators throughout the country, it is necessary to determine the need for and the feasibility of a number of Institutes. Discussions are already under way in the New England States, Pennsylvania, and on the West Coast. The Board of Regents have authorized the President, Howard E. Bishop, to appoint local committees to investigate and review the need and desirability for Institutes in the various locations. The programs for such Institutes will be worked out in collaboration with the American Hospital Association, the American College of Surgeons, the State Hospital Associations and local Hospital Councils.

Standards pertaining to Institutes for Hospital Administrators were set forth by Dr. Malcolm T. MacEachern, Chairman of the Institute Committee, in a paper presented before the general meeting of the A.C.H.A. in Atlantic City. Twelve fundamental principles as expounded by Dr. MacEachern are briefly reviewed in the following passages:

1 Institutes for Hospital Administrators are primarily adaptable to men and women experienced in hospital administration. They are designed to keep such men and women professionally fit.

2 Institutes quicken the critical approach to problems. They broaden the Administrator's viewpoint through lectures, seminars, discussions, and demonstrations and impress him with the necessity for thorough study of the peculiar characteristics of any institution before making decisions or attempting to evaluate methods and experiences.

3 Knowledge imparted through the Institute must be based on broad adjustable principles which are applicable to all types of hospitals. Emphasis should always be placed in the teaching program on the special problems concerned in the administration of the small hospital.

4 To be successful and of value the Institute must be well organized and well conducted in every phase. Didactic instruction must be supplemented with applied administration as seen in the hospital demonstrations. These demonstrations are the keystone of a successful Institute.

5 No Institute should be organized except under proper auspices; preferably a national organization. A careful survey should be made to determine the need and practicability of such Institutes.

6 The teaching faculty and hospital personnel employed for demonstration must be carefully selected.

7 Attendance at the Institute should be limited to administrators of hospitals and their associates and assistants. If other than executive personnel is accepted into the Institute, the program should be adjusted accordingly.

8 It is deemed advisable that two weeks (that is twelve days of instruction) constitute the minimum period of time for each Institute, in order to be educationally effective.

9 If possible, each Institute should be held in the environment of a recognized university, preferable under its auspices or through affiliation.

10 Effort should be made by the Committee in charge of the Institute to limit the expenses of the individual members attending through low registration fee and reasonably priced living accommodations.

11 Teaching and demonstration facilities should determine the number attending the Institute. Individual attention, insofar as possible, is most desirable and can be arranged by conferences and seminars.

12 All other conditions being acceptable, Institutes should be arranged geographically for convenience. They should be run on lines approved by the American College of Hospital Administrators and the American Hospital Association.

Persons in charge of State Association meetings who believe there is a need in their territory for an Institute or for a "refresher course" of less than the prescribed twelve teaching days should submit plans to the American College of Hospital Administrators for review by the Institute Committee: Dr. M. T. MacEachern, chairman; Dr. A. C. Bachmeyer; and Mr. John R. Mannix. In this way the College can best offer guidance and appraise the merits of tentative plans and determine what assistance, within its means, can be offered.

A limited number of copies of Dr. MacEachern's paper presented before the meeting of the College are available for distribution. Requests for copies will be filled as long as the supply lasts.

Protecting the Hospital Against Fire Hazard

WILLIAM J. OVERTON, New York City

PROTECTION for hospital patients, employees, and property against loss by fire is maintained and assured only to the extent of the equipment available, its suitable location, intelligent operation and application. Although hospital buildings may meet the standards of city and state codes, it is important to remember that standpipe systems and auxiliary equipment may be obsolete, fire fighting apparatus may be improperly placed and spaced to protect the most hazardous locations. Education of employees in the efficient use of the protection available may be sadly neglected. A fifty foot hose on the standpipe rack may not be long enough to reach the source of a conflagration. Hose allowed to stand for long periods without inspection and test may show, in an emergency, water pouring from every direction but the nozzle as a result of deterioration of the linen fabric. Probably the valve was opened at some time or other by a curious individual and the hose became partially filled so that the stagnant water therein began its attack upon the interior. If this condition were allowed to remain for any length of time, the ultimate result would be the destruction of the hose. It is a wise practice to remove hose from its rack from time to time, lay it out straight, without kinks, drain and allow to dry thoroughly before replacing.

Organizing the Employees for Fire Protection

A fire-fighting regiment should be organized, with a competent and reliable employee in command. One group will be assigned the handling of the fire-fighting equipment. One employee, preferably an electrician, is delegated to control the electric panel boards and switches, which, in case of necessity, may be turned off in the vicinity of the fire, so as to lessen the likelihood of electrocution. Water is a conductor and current will travel with the hose stream; if the person holding the metal hose nozzle is standing on dead and wet ground, he may suffer severe and possibly fatal electric shock. Other groups of employees should be assigned the duty of attending to patients and of closing doors to prevent the spread of smoke. The elevator operators should be instructed to bring elevators to the floor on which the drill is in progress or is the scene of a fire. Other employees are assigned to man the fire pumps. Electricians are instructed to stand by switch boards and an oiler or a member of the engineering force is to stand by the engines. In smaller institutions where these men are not employed, the maintenance crew is delegated to act in these latter capacities. The switchboard operator should discontinue all telephone service and devote her attention to the wire open to the nearest telephone at the site of fire and the wire to the engine room, so that instructions may be given and relayed with a minimum of delay. Nurses, orderlies, and attendants should be instructed in their duties as regards the safety of the patients and the manner and method of moving them with the least possible confusion and discomfort to them.

The Author

● **William J. Overton is the Supervising Engineer of the Montefiore Hospital, New York City. He has made an extensive study of fire control in hospitals.**

Testing the Hospital's Fire Equipment

After the fire-fighting group is organized, instructed, and clearly understands each individual's particular function, a demonstration of the various portable fire-repellent equipment that is available throughout the institution should be made. The accessibility of all the necessary apparatus, fire hose in good workable condition, standpipe systems, and modern portable extinguishers, does not necessarily guarantee safety unless the personnel so designated thoroughly understands the working and handling of them. To illustrate: An electrical fire, such as one caused by short circuit or motor-burn-out, should not be attacked with a soda acid portable extinguisher or stand pipe fire hose, as the smouldering electrical piece may still be energized and the contact may do serious damage to human life and to the equipment. The fire extinguishing agents used for combating electrical fires are non-destructive and easily removed from the mass without harm to the unburned parts. Only in circumstances of extreme necessity should a piece of mechanical equipment, such as a motor be smothered with sand, as the damage done would be two-fold. Sand in contact with fine precision parts causes irreparable damage. A sensible precaution against electrical fires is to be certain that the electrical fuses are the proper size for the capacity load intended. The tendency is to use fuses of a higher amperage than called for by the standard codes.

In such cases the fuse then becomes a hazard instead of a protection.

Portable Extinguishers

There are several types of portable extinguishers on the market, of which the principal ones are: (a) pyrene or tetrachloride (b) foamite (c) sand (d) soda-acid (e) carbon dioxide, which can be obtained in either portable or wall type. The pyrene contains tetrachloride, which is non-inflammable and non-conductable, and can be used on electrical fires without damage. This ingredient is used extensively in dry-cleaning fluids to render them non-inflammable.

The soda-acid liquid is a mixture of bicarbonate of soda and sulphuric acid and water, varying in proportion to the size of extinguisher. The definite quantity of each ingredient can be found on the data plate. The working principle of this type is that the combination of soda and sulphuric acid creates a pressure against the water when placed in operating position, thus forcing the liquid through the hose. In the use of pressure liquids, there is an element of danger in the case of small conflagrations, in that when all of the liquid contained in the extinguisher is not fully expelled, the operator is inclined to kink the hose in order to stop the flow. If the hose is permitted to stand kinked, the pressure builds up within the container to such a point that it will burst, probably causing greater damage and injury. If on the other hand, after placing the extinguisher in operating position, no fluid under pressure is forthcoming, the extinguisher should be removed immediately to a location away from the vicinity of patients and employees and the hose should be cut immediately as closely as possible to the metal part of the extinguisher, so that the plug causing stoppage remains in the hose. Thus the pressure is released through the short elbow and nipple at the top of the extinguisher. If the pressure is blocked at the elbow and nipple, it should be placed immediately in the hands of a member of the engineering staff, who will be familiar with the manner of approach with a minimum of danger to life and property. The sulphuric acid content of this solution is harmful to cotton fabrics and articles of ordinary composition and for that reason care should be exercised in its application.

These precautions concerning failure of the extinguisher to operate also apply to the foamite type, which is similar to the soda-acid in construction and operation, but the chemical ingredients are different. When set in an operating position the action of these chemicals forms a soap suds solution and when spread over the burning area a blanket is created which cuts off free air.

Carbon Dioxide as a Fire-Fighting Weapon

Carbon dioxide as a small fire-fighting weapon is very much in favor at the present time, in view of the fact that it is more readily obtainable and cheaper than heretofore for this purpose. It has virtually no destructive results when used on materials and equipment and its effectiveness on spontaneous liquids is immediate, in that, by its injection it cuts off the supply of free oxygen to the burning surface, thereby discontinuing the spread of flame. For this reason we can appreciate its desirability in the case of oxygen tent fires. However, the element of danger again asserts itself where the presence of a patient in the tent is to be dealt with. Carbon dioxide gas is compressed and when released to the atmosphere, takes a gas form and has the same action as a refrigerant. The result therefore of the condensation of the gas would be an extreme cold vapor and if permitted to contact the skin, a painful burn would be the consequence. Quick action of operation is advisable with this form of gas because the least amount of it that is used, the greater is the margin of safety assured to the patient and at the same time the extinguishing of the blaze is hastened.

In no instance should a pyrene extinguisher be used on oxygen tents or tanks as tetrachloride in contact with oxygen will generate phosgene gas, which would endanger life by phosgene poisoning.

Personnel should be assigned to stations, drilled to reach the scene of fire promptly, and trained to handle equipment intelligently.

Fiftieth Anniversary of Vassar Hospital

Vassar Hospital celebrated its fifty years of service to the sick and injured of Poughkeepsie, New York, on October 7. During the day the hospital held open house and visitors had the opportunity of inspecting the various departments and an interesting group of exhibits.

In the evening a community meeting was held in the auditorium of the high school, an historical pageant relating to nursing and hospital care was staged and the sound motion picture, "Good Hospital Care" was shown. Mr. J. J. Weber, who has been the administrator of Vassar Hospital since 1929, arranged the program for the celebration.

The Nurse as a Factor in Cross Infections as They Occur in Children's Wards

PHILIP S. BARBA, M.D., and JOHN C. WILLIAMS, M.D., Philadelphia

LET it be understood at the very beginning that this paper is not meant to be an indictment of the nurses. They have at best a difficult job, usually performed to the best of their ability and frequently under severe handicaps. In fact, the title of this paper is somewhat inadequate. It should be the *personnel as a factor*, because the entire staff, including cooks, should be considered in our effort to eliminate cross infections. Therefore as we proceed with this discussion please do not limit your mental picture to the nurses, but include the resident staff, the visiting physicians, the surgeons, the orderlies, the maids, the dietitians, the cooks in the kitchen and the artisans who perforce invade our wards for repair or alterations. Frequently we have seen a nurse wash her hands and don a gown to help a resident or visiting physician go over a patient, while the doctor, unwashed and ungowned, sits on the edge of the child's bed and then passes on to the next case.

Methods of Transmission of Infection

To simplify our discussion, let us outline the various methods of transmission of infection, which must be considered in relation to the personnel.

Fomites: That is by carrying infectious material on hands, clothes, faces, etc.

Carriers: Where the individual acts as host to infectious organisms without showing any clinical symptoms.

Actively Infected Cases: Where the individual is consciously or unconsciously the victim of infection in some part of the body.

In considering personnel members as fomites, which is not really as unpleasant as it sounds, we must consider what infections are transmissible in this manner.

Fomites

So far as *a ward* is concerned, it is best to consider that all infections are transmissible by fomites. Here we are almost always dealing with sick or injured individuals, whose resistance is lowered to a point where they are apt to be receptive to any infection. Also the contacts are so close, and the time interval so short, that nature's bactericides, sun and air, have little chance to inhibit the activity of the organisms.

Pertussis, which is rarely transmitted except by direct exposure, may be transmitted in a ward by a nurse acting as a fomite.

Harries[1] states that "measles and chicken pox as well as upper respiratory infections are spread by personal contact in spite of cubicle isolation."

Dysentery, the ordinary infectious diarrheas, furunculosis, mastoids, pneumonias, any infection may be carried on the hands or clothing of the staff. Such infections may manifest themselves in other individuals in an entirely different form. The result, in any event, is an added burden to the patient and decreases the chance of an early recovery. It must be remembered that a patient in a cubicle is infectious and so is everything inside that cubicle. How kind is the nurse to a colicy baby who picks him up after she has leaned on the infected side-bars of a crib containing a child with streptococcus mastoiditis?

Sauer[2], in his report on the Cradle, found that the nurses changing diapers on cases infected with Morgan dysentery bacillus did not rid their hands of the infectious material by ordinary methods of washing. Toomey[3], after an epidemic of paranychia among nurses in scarlet fever wards, found active streptococci in the bottom of a bowl of alcohol. This was also found with other antiseptics. After installation and use of running water and soap no more cases occurred. Such a problem should not be difficult to solve. It means education, watchfulness, and cooperation.

The Author

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Presented before the Children's Hospital Section, American Hospital Association Convention, Atlantic City, September 15, 1937.

Carriers

When it comes to the question of carriers, we have a somewhat similar problem; one, however, which is not easily controlled. Remember, that by carriers we mean non-infected hosts of pathogenic organisms.

How, other than by carriers, can we explain the outbreak of scarlet fever starting with a patient with a fractured femur who has had normal temperature during his four weeks' stay in the ward?

O'Kell and Elliott[4] describe the widespread dissemination of the streptococcus in throats of personnel during outbreaks of acute infection in an ear, nose, throat ward. Weekly nose and throat smears showed many potential carriers. In their efforts to cut down the number of outbreaks they concluded that "the most important single factor is the care and the instructed intelligence of the nursing and medical staff."

Blatt[5] feels that masking of personnel, especially nurses, is most important. He uses a form-fitting cellophane mask to overcome the discomfort and disadvantages of the old type gauze mask.

Crosbie[6] states that masking of staff protected the ward infants from catarrhal infections and almost ruled out enteritis.

Christie[7] writes that nurses in pneumonia pavilions became temporary carriers of pneumococcus without apparent effect on themselves.

Again we must ask ourselves what good we do a cute little feeding case when we lean over his bed and laugh and talk and spray him with assorted droplets containing probably several varieties of streptococcus, pneumococcus, etc.

There are other organisms which may be carried by our personnel. For instance, how many superintendents or supervisors would be prepared to swear there was not a typhoid Mary on their ward? Or that none of their staff had encysted amoeba or giardia in their stools?

Actively Infected Cases

Perhaps the most difficult problem we have is the individual with actual infection. This is for several reasons. One, which we should make every effort to check, is because the nurses resent losing time, and therefore they do not report sick until they are unable to work or until their supervisor or a physician sends them off duty. This same criticism applies to resident staff, chiefs, and the entire personnel.

Harries[1] quotes Bliss, Long and Carpenter[8] as showing that an individual with a common cold, preparing food in a kitchen, was enough to transmit the cold to apes even though distribution of that food was done by other individuals under aseptic precaution.

Entirely aside from the quite natural desire we all have to keep working, unless really ill, we are confronted with the impossibility of knowing when infection starts and when it ends. A nurse, or anyone else, who develops an upper respiratory infection, has certainly had the infectious material in her throat for a period varying from hours to days before she is aware of any symptoms. Also she certainly has infectious material in her air passages for days after she feels well and appears clinically normal.

In this respect it is interesting to note that Schick and Karelitz[9] reporting on the use of the Priquet cubicles for infants had 12 children with infection of upper respiratory tract out of 89 admitted to the cubicles. Three of these were traced to a nurse who developed a cold at the same time.

In contrast to this is Sauer's[2] report of the Dick technique at the cradle. There with perfect aseptic precautions they went through six years without a single case of cross infection. That is perfect technique. Anyone who has tried to enforce a technique must realize what training and education and constant supervision was used to reach that grade of perfection.

While we think with dread of the so-called acute contagious diseases, they are actually a minor matter in the average children's ward or hospital. With half-way decent quarantine facilities and a good admitting officer, these cases occur only occasionally, and with the exception of measles and chickenpox are seldom the cause of many secondary cases.

The authors have, however, had the unfortunate experience of having a newborn contract tuberculosis from a nurse, and of having an attractive child with a mild secondary degree burn contract scarlet from a solicitous pupil nurse who developed the disease a few hours after carefully feeding the child his supper.

So much for the ways in which a nurse or staff member may be of more harm than good to the children committed to their care. How are we to prevent this state of affairs?

In Sauer's article on the Cradle previously quoted he described the unit system and cubicle system they used. It would certainly be impossible for all hospitals to convert their children's

wards to such a plan. While we seem to be crawling out of the depression we do not find money lying around loose.

Importance of Isolation Technique

How far *must* we go in our effort to combat this problem of cross infection?

It seems to us that the question of nursing technique (and remember that this term is not limited to nurses) is one which can be met with little or no expense other than the expenditure of time and effort.

In this respect it is interesting to note that every article on the subject of infections and epidemics stresses, either directly or indirectly, the importance of technique. The English journals speak of it as "barrier" nursing, the American journals as "isolation technique."

Such a course requires the cooperation of the entire staff. How can we expect pupil nurses, or graduates, or ward helpers to take the trouble of scrubbing, gowning, masking, etc., when they see doctors running from bed to bed without those precautions?

It hardly seems necessary to list the exact technique in this paper. Any graduate nurse knows what isolation technique means. It is the enforcing of the technique that counts.

Selection of Staff

Added to the enforcement of technique, in fact almost essential to its enforcement, is the proper selection of the staff, particularly of the nursing staff, but also any lay helpers.

Outline of Employment Requirements for Graduate and Pupil Nurses

1 Preliminary Education—High school graduates
2 Aptitude tests
3 Physical Examination—by staff physician
  1 X-ray of chest
  2 Stool exam. and culture
  3 Nose and throat cultures
  4 Vaginal smear
  5 Wassermann
  6 Tuberculin test
4 Past medical history
5 Contagious disease test and immunizations
  1 Smallpox
  2 Diphtheria
  3 Scarlet fever
  4 Typhoid
6 Repetition of chest x-ray and immune tests at yearly intervals
7 A readily available service record with charting of the various diseases, immunizations, examinations, and re-examinations.

A reasonable amount of education is essential for them to be able to grasp even the rudiments of medical education. But it is even more important that they should be intelligent enough to use what knowledge they acquire. To this end we would like to suggest the use of an aptitude test for pupil nurses, in an effort to determine their ability to think.

A complete physical examination by a member of the hospital staff is necessary. This examination should include the various tests as enumerated in the outline. We suggest that these tests be made at the hospital rather than by the prospective nurse's family physician, because more uniform results are possible.

The question of nose and throat cultures is a difficult one. In this respect it is interesting to note that Harries[1] quotes Beggs and Maer, from an unpublished communication, as finding 56 per cent of the entrants to training in the North Eastern Hospital of London, as having hemolytic strep in their nose and throat. Where the naso-pahrynx was healthy, the cultures rapidly became negative. Where unhealthy conditions of the naso-pharynx existed, the individuals developed acute infections or become profuse carriers of strep. Of 173 nurses on various wards 88 had hemolytic strep in nose or throat cultures. The only 3 showing pure cultures were caring for scarlet cases. Of nurses with healthy throats 61.6 per cent returned negative cultures, as compared to 16.5 per cent of those with unhealthy naso-pharyngeal tissues. The latter nurse is not only a menace to her patients but is herself in danger.

This is an obvious indication that an individual seeking hospital employment, whether as nurse, doctor, or lay employee, should have a healthy nose and throat.

In regard to the examination of the chest, we feel that plates are more satisfactory than a fluoroscopic alone. Also the chest examination should be repeated at yearly intervals, including x-ray, as it is quite possible for these young adults to develop a tubercular infection while in training or working on the wards.

Bow[10] claims that incidence of tuberculosis in nurses is lower in sanatoria than it is in general hospitals. He also claims that negative reactors acquire tuberculosis more readily than do positive reactors.

He quotes O'Hanlon as placing the average incidence of tuberculosis among women in general

at 1.5 per cent whereas among nurses in Chicago it was placed at 2.2 per cent.

Bow[10] also quotes Heimbach as finding 12 per cent of student nurses developing the disease over a period of 4 years.

Probably the higher incidence in general hospitals is because many of their patients are admitted for acute conditions and the nurses do not realize, or think of, the coincident tuberculous infection.

Certainly a known case of tuberculosis is less dangerous than an unsuspected case. This applies whether the case is a patient or a nurse.

It is for that reason that we advocate repeated examination, not only of the pupil nurse, but of the entire personnel.

The question of vaginal smears and Wassermann reactions is too obvious to need discussion.

After the physical examination comes the question of immunization of the nurses to diphtheria, scarlet fever and typhoid. Apparently diphtheria immunization has been almost universally accepted. The immunization against scarlet fever is still not accepted by a large percentage of the hospitals.

Dr. Paschal Lucchesi[11] recently reported the number of nurses and interns admitted to the Philadelphia Hospital for Contagious Disease during the years 1927 to 1936. During the 10 years the Germantown Hospital had 13 nurses admitted with a total stay of 392 days. We were tied for third place among the Philadelphia hospitals in number of admissions. A questionnaire was sent to 27 Philadelphia hospitals, asking their custom in regard to immunization. Twenty-six answers were received. The results were as follows:

Eleven have their nurses Dick tested

Ten have their nurses immunized

Sixteen do not immunize

Five felt there was definite decrease in cases since starting immunization

Two were of too recent innovation to decide

Two hospitals felt the nurses lost an appreciable amount of time

Two hospitals who do not immunize—felt that it was not worth the time lost and stopped for that reason

Two require the immunization before the girls enter training

Of the two children's hospitals—

One does not immunize

One started in 1937

Of the teaching hospitals—that is those connected with medical schools:

Five do not immunize the nurses

Three do.

The Municipal Hospital for Contagious Disease insists on immunization of the entire staff.

The Philadelphia General tried immunization on two occasions and discarded it because of the severity of reactions.

Apparently some of the hospitals feel that the reactions are too severe to warrant routine use of immunization. One felt that the girls lost more time than they did from scarlet fever itself. Strange to say that hospital had the highest actual number of cases, if not the highest percentage of admissions to the Municipal Hospital during the 10 year period.

In reports concerning the results of immunization elsewhere there seems to be a fairly unanimous agreement that, as used in various types of institutions, the number of cases of scarlet fever is definitely reduced.

Anderson and Reinhardt[12] strongly advocate the immunization of nurses against scarlet fever. They quote Hectoen and Johnson as lowering the rate of infection in Durand Hospital from 7.7 to 0.5 per cent. They quote Rhoads as reporting from Cook County in 1931, 3.3 per cent infection in non-tested non-immunized groups, and, complete protection in Dick negative or immunized groups. In studying the records of 38 Massachusetts hospitals Anderson and Reinhardt[12] found 12 per cent of Dick positive developed scarlet fever. Three and seven-tenths per cent of a group composed of positive Dick and non-tested cases developed the disease. Only .67 per cent of negative Dick cases developed scarlet fever.

According to such figures it would seem that the course of wisdom would be to immunize our nurses for their own protection. However, we must not lose sight of the fact that an immune individual may still carry infection to a non-immune. Our protected nurses therefore will have to be just as careful in their contacts with the children.

Typhoid immunization should be optional with the hospital. A history of previous typhoid, or of inoculation should be kept in an available form so that suspicious cases could have immune nurses assigned. *This immunization is primarily for the benefit of the nurse.*

Intensive Course in Hygiene Necessary

Having fulfilled the foregoing qualifications, passed the necessary tests, and taken the various

immunizations, the nurse should receive an intensive course in hygiene before she is allowed to enter the wards.

How can we expect these girls to know anything about infection until they have been taught. Even after years of experience we find doctors as well as graduate nurses making the most obvious slips in technique. Apparently familiarity does breed contempt, especially if we can find some one else to be the goat when we try to explain our serious accidents.

We feel that practical teaching is the most important. Have them touch an agar plate, or cough on plates, or talk to a plate. Let it incubate, then show them what growth is possible from an apparently harmless contact. Such demonstrations may set up phobias in a few of the girls, but it will save a host of infections if the possibility of transmission is well planted, and then carefully cultivated through the following years.

When Cross Infection Starts

If a wave of cross infection should start in a ward the personnel should be carefully examined for carriers. Aseptic technique, if not already in use, should be instituted to a degree reached in operating room technique. Extra nurses should be put on duty if necessary.

Certainly if we can afford to spend hundreds of dollars for antitoxin or for serum we can afford to spend the few dollars necessary to provide adequate nursing. Why should children die as the result of factors readily controlled, as Sauer[2] has shown, by the use of proper hospital technique?

The question of how many patients one nurse can care for is always the cause of debate. As in any other business hospitals are subject to fluctuations. If we have enough nurses for a busy season they are falling over each other in a slack season. Infectious cases require more nurses than clean cases. The answer to this problem can be met in two ways:

1 A flying squadron of nurses which can be shifted from one part of the hospital to another, meeting busy periods in the day. Or, to stay a week or more in one department if necessary.

2 The hiring of general duty nurses to supplement the existing staff.

We feel that one nurse to every 4 patients is an ideal arrangement. Under some hospital setups more would be required.

Night Staffs

Night staffs also create a problem. Too often the night shift is cut to a minimum. We find the anomalous situation of a lot of trouble being taken all day to insure infectious precautions, then, with the arrival of a skeleton crew for night duty, all our precautions are set at naught. Emergency cases may take half or more of our nurses on duty. This problem may also be met by the use of a flying squadron. With true operating room technique it should be possible, but not necessary, to take nurses from an infectious ward to a clean ward without transmitting infection.

As mentioned in the introduction we do not intend any indictment of the nurses. These problems are for the medical staff, the management, and the personnel to solve. Is it better to have a twenty bed ward with no cross-infection, or a forty bed ward with every now and then a wave of infection, meaning increased mortality, or at least increased morbidity? Patients are sent into hospitals in the belief that they are getting the best possible medical care. We ask ourselves and you, "Are they receiving such care?"

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Dr. Duncan U. Saunders

Dr. Duncan U. Saunders, assistant superintendent of Eloise Hospital, Eloise, Michigan, died September 30, as a result of injuries sustained in an automobile accident.

Dr. Saunders was 64 years of age, and was graduated from the Detroit College of Medicine in 1906. He had been connected with Eloise Hospital for 16 years, and at the time of his death was in charge of the William B. Seymour Hospital, a unit of Eloise.

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EDITORIALS

Who Pays the Bill?

The hospitals of the United States each year accept approximately six thousand newly graduated physicians for intern and residency training. During every twenty-year period they train a larger number of physicians than there are actively engaged in the practice of medicine today. The minimum cost to the hospital of maintaining an intern or resident is one thousand dollars per year, or six million dollars annually for the entire group. The hospitals recover a major portion, if not all, of this expenditure in the value of services received.

Each seven-year period the hospitals train and graduate a larger number of nurses than are actively engaged as registered nurses in the practice of nursing today. Under the thirty months to three year plan of nursing education, it cost the hospital a minimum of two thousand dollars to educate and graduate a nurse; a total disbursement for all hospitals of $53,000,000 per year or $370,000,000 for the seven year period. Under the new courses of study, approximately fifty per cent of the student hours are spent in training at the bedside of the patient. The hospitals are returned approximately half, certainly not more than half, of this fifty-three million dollars annual disbursement in value of the services of the nurses in training.

The educational activity of the hospital is further extended to the training of dietitians, technicians, social workers, anesthetists, and others, vocationally closely allied to medical and hospital practice—an annual charge of a few million dollars for this item will be added to the important total disbursed for medical and nursing education.

Who pays the bill for the hospital's educational activity? Based upon the distribution of operating income, the patient pays eighty-two per cent, income from endowments five per cent, community chests and donations six per cent, tax spending agencies six per cent, and miscellaneous hospital income one per cent.

Is this heavy tax upon the paying patient equable or just? How long, if it is not equable and is unjust, are the hospitals going to continue to impose the burden upon the patient who, of all people, is in the least favorable position to carry it.

Is it economically sound, and is the hospital to assume the expense of educating the physician and the nurse, for the main reason that it is the only place where this education can be properly conducted? Are the returns to the patient commensurate with this enforced use of his money? The hospital uses less than fifteen per cent of the product of its medical and nursing education. The remaining eighty-five per cent go immediately into the service of the public and outside the hospital. Is the hospital justified in going to the enormous expense of training seven times as many nurses as it needs for replacement purposes for the care of their sick?

The great expansion in numbers of physicians and nurses in training in hospitals is not due to the need of hospitals for their services, but is due to the requirements of the public. The increasing charge against the income of the hospital for its educational activity is the concern of both those who support our institutions and the public in general. Certainly the practice of charging this expense to the patient should not long continue.

Hospital Standardization and Hospitals' Progress

The American College of Surgeons was founded twenty-five years ago. Five years later, after careful study and an intimate review of the essentials of good hospital administration and practice, a minimum standard for professional practice in the hospital was established and the first one hundred hospitals were surveyed.

The College determined upon such standards for the approval of hospitals as any hospital having good professional service and good hospital practice as its aim might readily subscribe to and meet. Those standards have not materially changed to this day.

The survey and approval of hospitals meeting the minimum standards has been one of the more important activities of the College for twenty years. This activity has been one of the greatest of public services, and whatever other of its accomplishments has brought credit and honor, the hospital standardization work has been its largest single contribution to community welfare.

Due to this work of the College, more than to any other influence, the hospitals on this continent have attained their present enviable position, particularly as relates to the care of the patient and the development of professional services. Further important advances will be made. It is one of the major factors that has encouraged the public to maintain an increasing respect for and a growing confidence in its hospitals.

The 1937 report shows a total of 3,575 hospitals of varying capacities above twenty-five beds which have been surveyed. Of this number 2,328 were approved; distributed as to bed capacities 1,571 were above one hundred beds, 577 between fifty and ninety-nine beds, and 180 between twenty-five and forty-nine beds. Eighty-eight per cent of the surveyed hospitals above one hundred beds, fifty-five per cent of the surveyed hospitals of fifty to ninety-nine beds, and sixty-eight and five tenths per cent of the surveyed hospitals of twenty-five to forty-nine beds were fully approved.

The seal of approval given the individual hospital is the hall-mark of honor. It identifies the hospital as an institution of merit, entitled to the confidence of the public, and the devoted interest of the professional staff.

During the twenty years of standardization, the College has conducted each survey honestly and fearlessly. Its approval of the hospital has been given without bias or favor, uninfluenced by the importunities of the medical staff, or the insistent requests of hospital administrators and their Boards of Trustees.

The work of standardization from its inception has been under the immediate direction of the present Associate Director of the College, Malcolm T. MacEachern, M.D. Its success has been a tribute to his unceasing labor, his intelligent solution of difficult problems, and to his intellectual honesty.

Hospital Service in Epidemics

No one can foretell at what hour of the day or night every resource of the hospital will be called upon to care for the victims of some great catastrophe. No one can prophesy the sudden spread of an epidemic, when the victims will fill the hospital wards, when the professional and administrative staff will work day and night to save the lives of the unfortunates, and provide the proper treatment and care for their recovery.

The public appreciates the hospitals in these emergencies, and looks to them for sanctuary. They know that the sick will be cared for, that nothing in human effort nor professional skill will be spared in its service. To the public in such periods of distress "the hospital is the light that never fails."

As an example of courage, resourcefulness, and personal heroism, the service of the hospital of Toronto during the present epidemic of poliomyelitis fills one of the brightest pages in the history of hospital service.

Suddenly, and almost without warning, hundreds of children, victims of this disease, were brought to the hospitals' wards. The medical, nursing, and administrative staffs worked day and night, willingly and without complaint. No one can estimate the number of lives that were saved through their heroic and devoted service.

And then came a period of after-care for the little children. The supply of splints was entirely inadequate, dozens required respirators, all must have Bradford frames, and other mechanical appliances. Each patient must have the attention of skilled orthopedic surgeons and pediatricians.

The medical men, the nurses, or the hospitals failed. Under the supervision of the internationally known orthopedists of Toronto, each case received the best of attention. The superintendent of the Hospital for Sick Children in Toronto converted the basement space into an emergency work shop, and under his direction splints, frames, and corrective mechanical appliances were manufactured. Even respirators were constructed as needed and put into use. Every bed in his hospital was occupied. Day and night, his surgeons, doctors, nurses, and assistants worked until the epidemic reached its peak, and was finally brought under control.

Service never faltered for an instant in any of the hospitals in Toronto. If mechanical appliances were not available, the hospitals manufactured them, and they made an excellent product, adapted to the uses of the patient for whom it was especially constructed. If twenty-four hours were required to make the ward rounds, the professional staff worked twenty-four hours. When the wards were overcrowded additional accommodations were provided and each new patient was taken care of. When it was all ended, members of the staffs rested and settled down to the after-care of the patients.

The public may soon forget the service the hospital gives when disaster comes, but in their present generation the citizens of Toronto will not forget the service the hospitals rendered their children, nor cease to be grateful to them.

Legislation

The coming session of Congress will pass upon legislation which in many instances directly affects our hospitals. The problems of federal revenues, the wages and hour laws, the changes in the Social Security Act, the unearned profits, regulation, processing taxes, property and income taxes, and other proposed legislation must be care-

fully considered for their effect upon the finances, resources, and policies of our institutions.

Federal payments for the care of certain indigents, and for the care of federal employees under the Compensation Act; the use of government funds for rehabilitation or new construction; the availability of government funds for hospital loans; provisions for the use of radium, government owned or controlled; the government care of the crippled child; its interest in maternal welfare; the government support in the control of cancer, the social diseases, and other preventive measures must be carefully studied by the hospital administrators. All of these concern not one hospital alone, but every hospital whether governmental, voluntary, denominational, or privately owned; whether they are members of the American, Catholic, or Protestant hospital associations, or non-members.

The Joint Advisory Committee, representing the national hospital associations, consists of nine members, the president and two members of each national association. Its personnel is broadly representative. In its work it seeks the advice and counsel of those interested in the success of our hospitals, and the support of the entire hospital field.

The work of the Joint Committee will be increased during the coming year, not only so far as Congress and the Dominion Parliament is concerned, but by the State and Provincial Legislatures as well. Every hospital should give this Committee its cooperation and financial support.

Legislation will be carefully sifted by the Joint Committee. It will advise the hospital field as to its probable effect. It will counsel the field as to how it should proceed in the legislative problems present and will keep the field advised of the progress of proposed laws.

Hospitals must appreciate that it is to their interest to be vitally interested in legislative matters. Both their income and operating expense are directly affected. The interests of the hospitals are joint interests—the laws that affect one to a greater or lesser degree affect all. Each institution should pay close attention to the legislative bulletins that are from time to time sent to them.

The House of Delegates

The Board of Trustees, the Six Councils, and the House of Delegates are the three administrative bodies of the American Hospital Association established under the By-Laws. The House of Delegates consists of representatives of the Association, and the members of the Association elect them.

The House consists of not more than one hundred members. Each state and province and territory and the District of Columbia is entitled to at least one delegate, five other delegates at large are elected each year by the assembly at the national convention. The members of the Board of Trustees, the president, treasurer, immediate past-president, and the president-elect are by virtue of their offices members of the House of Delegates. There remain thirteen Delegates who are to be elected by those states entitled to them because of the large per cent of patient-day service rendered by the institutional members of the Association within the states.

The fifteen delegates at large elected at the Atlantic City Convention, together with the members of the Board of Trustees, the president-elect, past-president, and treasurer of the Association constitute the present elected members of the House of Delegates.

The By-Laws provide that the membership in each state elect the Delegate for the state at an early convenient time, probably at the coming state or regional conventions.

A card asking for the report of its patient-day service for the year 1936 was mailed to each institutional member, and as soon as the total of cards is returned the apportionment of members by states will be made.

The House of Delegates is the important legislative body of the Association. It will recommend new legislation, or suggest amendments to existing legislation. It elects the Association's officers. It will be composed of men and women who are leaders in the hospital field, selected because of their ability to direct and develop the American Hospital Association.

The Editorial of the Month

"The Door That's Always Open"

"During 1936 more than eight million patients were admitted to the hospitals of America—one new patient every four seconds! In that year, too, more than eight hundred thousand babies, born within hospital walls, had a proper start toward lives of health and happiness.

"In a span of seventy years, the law of averages decrees that you will be a hospital patient at least four times, dependent upon the hospital for vitally important services.

"See to it that your hospital is fully ready to serve you and your community. Do not wait until dire need arises, but enter now, as a friendly citizen. Understand its problems. And if you have been a patient, share your knowledge with others that they, too, may become friends of an institution that serves all—at all times."

October issue of "The Commentator."

The By-Laws of the American Hospital Association

Adopted at the Atlantic City Convention September 16, 1937

Article I—Name and Object

This Association shall be known as the American Hospital Association, Incorporated. Its object shall be to promote the welfare of the people through the development of hospital and out-patient service. To further this object, the Association shall encourage professional education and scientific research, aid in the health education of the public, cooperate with other organizations having a similar object, and do all things which may best promote hospital and out-patient service efficiency.

Article II—Membership

Section 1 *Classes of Membership.* Membership in the Association shall be of three classes: (a) Institutional; (b) Personal; (c) Subscribing.

Section 2 *Institutional and Personal Members.* Membership in the Association on an institutional or a personal basis, as the case may be, shall be available to organizations and individuals interested in the object of the Association having a usual location or residence within the confines of the United States, its Territories and Insular Possessions, or the Dominion of Canada, on application and election as provided herein. The term "State" wherever used in these By-Laws shall include the District of Columbia and the Territory of Hawaii.

Section 3 *Types of Institutional Membership.*

(a) *Active Institutional* membership shall be available to hospitals or other similar institutions that have direct responsibility for the care and treatment of patients. This class of members shall be divided into three types:

Type I shall include hospitals, both general and special, that care primarily for acute diseases and conditions where patients stay a comparatively short time.

Type II shall include all other institutions that provide for the care of patients requiring prolonged residence, as well as hospital departments of institutions organized not primarily for the care of the sick.

Type III shall include dispensaries, clinics, and other similar institutions organized for the diagnosis and treatment of the sick but not rendering in-patient bed care.

(b) *Associate Institutional* membership shall be available to organizations interested in the object of the Association, but not eligible to Active Institutional membership.

Section 4 *Types of Personal Membership.* Personal membership shall be divided into four classes:

(a) *Active Personal* members shall be persons who at the time of their election are members of the boards of trustees, administrators, assistant administrators, members of the medical staffs, heads of any executive, administrative or educational department of hospitals or other similar institutions that have direct responsibility for the care and treatment of patients, however such officials may be designated, and executive officers of any organization having as its primary purpose the development of hospitals for general public service, the scope and nature of whose work is approved by the Board of Trustees. Any person once an Active Personal member may continue such membership as long as he conforms with the rules of the Association.

(b) *Associate Personal* members shall be persons not eligible to Active Personal membership.

(c) *Life* members shall be Active and Associate Personal members who shall have their memberships continued for life with exemption from payment of dues, on the payment of one hundred dollars ($100.00).

(d) *Honorary* members shall be persons of distinction who may be elected to honorary membership by the House of Delegates following nomination by the Board of Trustees. Honorary members shall pay no dues.

Section 5 *Subscribing Members.* Any person or organization not having a usual location or residence within the confines of either the Dominion of Canada or the United States, its Territories and Insular Possessions, may become a Subscribing member of the Association upon the payment of dues as hereinafter provided and during such membership shall be entitled to all publications of the Association.

Section 6 *Election of Members.* Applications for membership shall be made to the Executive Secretary in writing and the applicant shall become a member upon receiving the approval of a

majority of the members of the Membership Committee of the Council on Association Development, appointed by the Board of Trustees, and upon payment of initiation fee and dues for the first year as hereinafter provided.

Active Institutional Members, Type I, shall pay initiation fees on the basis of the total patient days of service rendered during the preceding calendar year as follows:

1 to 25,000 days of patient service.....$10.00
25,001 to 60,000 days of patient service... 20.00
60,001 or more days of patient service.... 30.00

All other Institutional Members shall pay initiation fees of $10.00.

Section 7 *Resignation of Members.* A member not in default in payment of dues, and against whom no complaint or charge is pending, may at any time file his or its resignation in writing with the Executive Secretary, and it shall become effective as of the date it was filed.

Section 8 *Expulsion and Reinstatement of Members.* The Board of Trustees may censure, suspend, or expel any member for cause after giving such member an opportunity to have a hearing. Any member suspended or expelled may be reinstated by the affirmative vote of a majority of the members of the Board of Trustees.

Article III—Association Dues

Section 1 *Scale of Dues.* Dues of Active Institutional members, Type I and Type II, shall be on the basis of one mill ($0.001) for each day of the first forty thousand days of patient service and one-half mill ($0.0005) for each day of the next seventy thousand days of patient service, newborn infant days excluded in each instance, during the preceding calendar year, with minimum dues for any one institution of $10.00 and maximum dues for Active Institutional members, Type I, of $75.00, and for Type II, $20.00. At the time such applicants are elected to Active Institutional membership, they shall pay dues for one full year on the basis of total days of patient service rendered during the preceding calendar year. Dues of Active Institutional members, Type III, shall be $10.00 per annum.

The Board of Trustees may at its discretion vary the above schedule of dues to meet special conditions that may arise in connection with the membership of groups of institutions that are owned and operated by units of government or other organizations.

Dues of Associate Institutional members shall be $15.00 per annum.

Dues of Personal members officially connected with an Institutional member shall be $5.00 per annum.

Dues of all other Personal members shall be $10.00 per annum beginning January 1, 1938.

Dues of Subscribing members shall be $10.00 per annum.

At the time any individual is elected to membership he shall pay dues for the entire year in which he shall be so elected, except that any individual who becomes a member after November first in any year shall only pay dues for the period commencing on the next succeeding January first.

Section 2 *Default in Payment of Dues.* If dues are not paid on or before the adjournment of the annual meeting, the Executive Secretary shall notify each member in arrears, enclosing a copy of this section, and if said dues are not paid on or before the succeeding first day of January, it shall operate to suspend all privileges of membership until all arrears are paid in full. At any time within three years after the date when dues are first required to be paid, a member who has been suspended shall be reinstated upon the payment of all dues in default and payable at the time of reinstatement; otherwise membership in the Association shall be terminated. The Board of Trustees in its discretion may modify the provisions of this section effective for such period as the Board shall determine.

Section 3 *Joint Dues.* In case any State, Provincial, or Territorial Hospital Association shall propose the establishment of a system of joint dues between itself and the American Hospital Association, the Board of Trustees shall have the power to agree upon, establish, and put in force such a system of joint dues and fix the division of the same between the two associations.

Article IV—Donors and Benefactors

Contributors to the permanent fund or endowment of the Association of sums not less than $100.00 shall be known as Donors and such contributors of $500.00 or more shall be known as Benefactors. The names of all such contributors shall be recorded and published in the Transactions of the Annual Meeting. A copy of that publication shall be sent each year to each living Donor and Benefactor.

Article V—Annual Meetings

Section 1 *Time and Place.* There shall be held an annual meeting of the Association, either within or without the State of Illinois, which shall include meetings of the House of Delegates and the Assembly, together with such meetings of the

Board of Trustees, Councils, Sections, and Committees as may be fixed by the Board of Trustees. The time and place of the annual meeting shall be designated by the Board of Trustees and announced at least four months before the date so fixed.

Section 2 *Program.* The program at the annual meeting shall be arranged by the Committee on Coordination of Activities, in cooperation with the Executive Secretary, and approved by the Board of Trustees. For the proper presentation and discussion of the work and problems of hospitals at the annual meeting, the Committee on Coordination of Activities with the approval of the Board of Trustees may establish sections, departmental in their nature or devoted to any branch of hospital work.

Article VI—The Assembly

Section 1 *Membership and Meetings.* The Assembly shall consist of such Active Personal members and voting representatives of Active Institutional members in good standing as shall register at the annual meeting. Sessions of the Assembly shall be held during the week of the annual meeting at such times as the Board of Trustees shall determine and announce, on at least 30 days notice, through publication in the official journal of the Association. One hundred Active Personal members and voting representatives of Active Institutional members, represented in person or by proxy, at any meeting duly convened shall constitute a quorum. The President, or in his absence, the President-Elect, shall preside at the meetings of the Assembly, and the Executive Secretary of the Association shall be Secretary of the Assembly. Special meetings of the Assembly shall be called by the President only upon the written request of not less than two hundred Active Personal members and voting representatives of Active Institutional members. Notice of such meetings shall be given as above set forth.

Section 2 *Institutional Representatives.* Each Active Institutional member shall be entitled to one voting representative in the Assembly of the Association or in any election or referendum conducted by the Association for every $15.00 of dues paid, provided, however, that every such member shall have not less than one vote regardless of the amount of dues paid. Whenever a group of institutions pay dues as a group, in accordance with the special provisions of Article III, Section 1, of these By-Laws, the voting representation of such group of hospitals shall be on the basis of dues paid in accordance with the above schedule.

Voting by proxy shall be permitted at meetings of the Assembly but no proxy shall be valid unless it shall specify the meeting or meetings at which the vote by proxy is authorized and shall be filed with the Executive Secretary at least ten days before the meeting.

Representatives of Associate Institutional members, Associate Personal members, Honorary members and Subscribing members shall be entitled to the same rights and privileges as Active Personal members, except they shall not have the right to vote, provided that Associate Personal members or Honorary members may be voting representatives of an Active Institutional member of the Association if they are officially connected with such institution.

Section 3 *Resolutions.* Resolutions adopted by the Assembly, except such as pertain to the amendment of the Articles of Association or By-Laws or to the internal affairs and functions of the Assembly, shall not be effective until the same shall have been referred to and reported by the Committee on Resolutions to the House of Delegates and adopted by that body.

Section 4 *Election of Assembly Delegates.* At the meeting of the Assembly at which these By-Laws are adopted, the Assembly shall elect fifteen members of the House of Delegates. Five of these Delegates shall be elected for terms of one year, five for terms of two years, and five for terms of three years; thereafter their successors shall be elected for a term of three years each. Each Delegate shall serve until his successor shall have been elected. Not more than one of these Delegates shall be a resident of any one State, Territory or Insular Possession of the United States or Province of the Dominion of Canada.

Section 5 *Election of Officers.* At the meeting of the Assembly at which these By-Laws are adopted, the Assembly shall elect the officers of the Association and three Trustees each of whom shall serve for the full term hereinafter provided in respect of such office or trusteeship. Thereafter, however, this function shall be performed by the House of Delegates.

Article VII—House of Delegates

Section 1 *Membership.* There shall be a House of Delegates of not to exceed one hundred members, which shall consist of the following:

The State and Provincial Delegates, chosen as hereinafter provided;

Fifteen Delegates chosen by the Assembly;

The immediate Past-President of the Association;

The members of the Board of Trustees.

No person shall be eligible to be a member of the House of Delegates in any capacity who is not an Active Personal member in good standing, or the duly accredited representative of an Active Institutional member of the American Hospital Association in good standing.

Section 2 *Apportionment of Delegates.* Before January 1, 1938, and every fourth year thereafter the Board of Trustees shall apportion seventy-two delegates among the States and Provinces in proportion to the number of Active Personal members and voting representatives of Active Institutional members in such States and Provinces respectively as recorded in the office of the Executive Secretary on January first of the year in which the apportionment is made, but every State and Province shall have at least one delegate. This apportionment shall prevail until the next quadrennial apportionment whether the membership in the Association from a particular State or Province shall increase or decrease.

Section 3 *Election of Delegates.* The Board of Trustees shall appoint from the members of the American Hospital Association in each State and Province a committee of three persons for the purpose of conducting a meeting of the Active Personal members and representatives of Active Institutional members residing or having a usual location within the State or Province, at which meeting the members present and represented shall nominate and elect to the House of Delegates the number of Delegates apportioned to that State or Province by the Board of Trustees. An Alternate for each Delegate shall also be nominated and elected. Each such Delegate and Alternate shall serve for a term of two years and until his successor shall have been duly elected and certified. The Board of Trustees shall designate the Chairman and Secretary of such committee and the time and place at which the meeting shall be held. Not less than 30 days before the meeting the Executive Secretary of the American Hospital Association shall send notice by mail to each and every Active Personal member and Active Institutional member of the American Hospital Association in the State or Province at the address appearing on the records of the Association specifying the time and place of the meeting and the purpose for which it is being called. To constitute a quorum, at least twenty-five per cent of the members of the Association within the State or Province must be represented, either in person or by proxy, but the members present may adjourn the meeting to such time and place as they may see fit until a quorum is represented.

After the election shall have been duly held, such committee shall transmit to the Board of Trustees of the American Hospital Association a certificate, in the form which shall be furnished to such committee by the Executive Secretary, certifying to the time and place of holding such election, the number of members represented in person and by proxy, and the names and addresses of the elected Delegates and Alternates. When it shall appear from such certificate that the election therein certified to was duly held in accordance with the provisions of this section, the Board of Trustees shall approve the same and such Delegates and Alternates shall thereupon be deemed to be the duly elected Delegates and Alternates to the House of Delegates from such State or Province.

Whenever the membership of any State or Provincial hospital association and the American Hospital Association shall coincide; i.e., when all of the members of the State or Provincial hospital association are members of the American Hospital Association, such State or Provincial hospital association may elect, in such manner and at such time and place as it shall determine, the Delegates and Alternates apportioned to such State or Province by the Board of Trustees of the American Hospital Association. The results of any such election shall be certified to by the Secretary of such State or Provincial hospital association and approved by the Board of Trustees of the American Hospital Association as other elections under this section, and such Delegates and Alternates shall thereupon be deemed to be the duly elected Delegates and Alternates from such State or Province.

Section 4 *Meetings.* The House of Delegates shall meet during the annual meeting of the Association, and at such other times and places as it may determine. Meetings of the House of Delegates may be called at any time by the Board of Trustees and shall be called by the President of the Association upon the written request of a majority of the members of the House of Delegates. Thirty members present at any meeting duly convened shall constitute a quorum. The President of the Association, or in his absence, the President-Elect, shall preside at the meetings of the House of Delegates. The House of Delegates herein provided for shall hold its first meeting at the time of the annual convention in 1938.

Section 5 *Powers of House of Delegates.* The legislative powers of the Association shall be vested in the House of Delegates who shall elect the Trustees and Officers of the Association as hereinafter provided. All resolutions or recommendations of the House of Delegates pertaining

to the expenditure of money must be approved by the Board of Trustees before the same shall become effective. The House of Delegates shall have and may exercise all the powers, rights and privileges which are or may lawfully be vested in the members of the Association assembled at an annual meeting of the Association, except as otherwise specifically provided in these By-Laws.

Section 6 *Voting in the House of Delegates.* Each member of the House of Delegates, in whatever capacity, shall have one vote; no member shall have more than one vote by virtue of any dual capacity. The Executive Secretary of the Association shall act as Secretary of the House of Delegates, shall keep a roster of its members and shall keep and be the custodian of its minutes and records. The members of the Councils and the Chairman of each Standing and Special Committee of the Association shall have the privilege of the floor in the House of Delegates, but shall have no right to vote as such. Matters submitted to vote of the House of Delegates shall be determined by majority vote of members present and voting.

Article VIII—Board of Trustees

Section 1 *How Constituted.* There shall be a Board of Trustees which shall consist of the President, the President-Elect, and the Treasurer, all of whom shall be members *ex officio*, with power to vote, together with nine members elected by the House of Delegates as herein provided. If the office of an elected member of the Board of Trustees shall become vacant between regular annual meetings of the House of Delegates, such office may be filled temporarily by the Board of Trustees until the next annual meeting, at which time the House of Delegates shall elect a member for the unexpired term. In the absence of the President, the President-Elect shall be the presiding officer of the Board of Trustees.

Section 2 *Election of Trustees.* The members of the Board of Trustees whose terms do not expire in 1937 shall be members of the Board of Trustees created by these By-Laws until the expiration of the respective terms for which they were elected. At the annual meeting of the House of Delegates in 1938 and at each annual meeting thereafter, three trustees shall be elected from the members of the Association by majority vote of the Delegates present and voting and shall serve for a term beginning with the adjournment of the annual meeting at which they were elected and ending with the adjournment of the third annual meeting thereafter.

Section 3 *Quorum.* A majority of the Board of Trustees shall constitute a quorum.

Section 4 *Power of Board of Trustees.* The executive power of the Association shall be vested in the Board of Trustees who shall have charge of the property and control and management of the affairs and funds of the Association and shall have the power and authority to do and perform all acts and functions not inconsistent with these By-Laws or with any action taken by the House of Delegates.

Section 5 *Publications.* The Board of Trustees shall cause to be published a journal which shall be the official publication of the Association, the Transactions of the Annual Meeting, and such other bulletins as may be advisable. No paper shall be published in the minutes or in any magazine or paper as a part of the transactions of this Association except with the approval of the Trustees. All papers read at any session of the Association or its sections shall become the property of the Association. The Board of Trustees may cause the same to be copyrighted in the name of the American Hospital Association.

Article IX—Officers

Section 1 *Number.* The following officers shall be elected from the membership of the Association at each annual meeting of the House of Delegates:

A President-Elect, who shall assume the office of President for one year at the adjournment of the annual meeting next following the annual meeting at which he was elected;

A First Vice-President;

A Second Vice-President;

A Third Vice-President;

A Treasurer.

If any office shall become vacant, the office may be filled by the Board of Trustees for the remainder of the term.

The Board of Trustees shall appoint and prescribe the duties of the Editor of the official publication and an Executive Secretary, who shall act as Secretary of the Assembly, the Board of Trustees, and the House of Delegates. The Executive Secretary, the Editor, and other employees need not be members of the Association.

Section 2 *Duties.* The officers of the Association shall perform the duties usually performed by such officers, together with such duties as shall be prescribed by these By-Laws. In the absence of the President, the Vice-Presidents in the order of their rank shall perform his duties, subject to the provisions of these By-Laws.

Section 3 *Officers' Reports.* The President

and the Treasurer shall each submit an annual report in writing to the House of Delegates and the Assembly which shall be filed with the House of Delegates. The Treasurer's annual report shall be accompanied by an audit certified to by a licensed public accountant designated by the Board of Trustees.

Article X—The Councils

Section 1 *Purpose of the Councils.* The Board of Trustees may create or discontinue such councils as it may deem advisable. For the present there shall be six Councils for carrying forward the work of the Association, one each on Administrative Practice, Professional Practice, Hospital Planning and Plant Operation, Government Relations, Public Education, and Association Development. The Councils shall have such powers and duties, not inconsistent with the By-Laws, as may be determined by the Board of Trustees. Each Council shall endeavor to cooperate with other organizations interested in its particular phase of hospital activity.

The Council on *Administrative Practice* shall consider matters of a general administrative nature, such as hospital economics, admission and collection procedure, purchase and issuance procedure, trustee relationship.

The Council on *Professional Practice* shall consider matters of a professional nature, such as medical service, nursing, dietetics, social service, x-ray, laboratory, physical therapy, clinical records, out-patient department.

The Council on *Hospital Planning and Plant Operation* shall consider matters such as hospital construction, equipment, supplies, and plant operation, including matters relating to housekeeping, laundry, heat, light and power, and maintenance.

The Council on *Public Education* shall concern itself with all matters affecting the education of the public regarding hospital service and matters of public relations.

The Council on *Government Relations* shall consider matters affecting the relation of hospitals to governments and endeavor to cooperate with all branches of government interested in any phase of hospital service.

The Council on *Association Development* shall consider matters affecting the development of the Association. This Council shall prescribe rules and regulations subject to the approval of the Board of Trustees governing the admission of members to the Association. There shall be a membership committee of this Council, appointed by the Board of Trustees.

Section 2 *Appointment of Councils.* Immediately following the annual meeting at which these By-Laws are adopted, the Board of Trustees shall appoint, on nomination of the President, six members of each Council—two to serve one year, two to serve two years, and two to serve three years. Each year thereafter two members of each Council shall be similarly nominated and appointed to hold office for three years. The President shall designate the Chairman of each Council each year, but no member of the Board of Trustees shall serve as Chairman of a Council. Each Council may select its own Secretary and the Chairman of each Council may appoint such committees subject to approval of the Committee on Coordination of Activities from the membership of the Association as may be deemed necessary to carry forward the work of the Council.

Section 3 *Reports of the Councils.* Each Council shall on or before such date in each year as shall be fixed by the Board of Trustees, prepare and submit its written report covering its work for such year and its recommendations, if any. Each such annual report shall be distributed promptly by the Executive Secretary to the members of the Association. No report, recommendations, or other action of the Councils, or of any Committee shall be considered as the action of the Association unless and until the same has been approved or authorized by the Board of Trustees. The Board of Trustees shall submit these reports to the House of Delegates.

Section 4 *Coordination of Activities.* The Chairman of each Council and the President of the Association shall constitute a permanent Committee on Coordination of Activities, of which the President shall be Chairman, for the purpose of coordinating the activities of the various Councils and developing the scope and details of a program of activities for the Association, subject always to the approval of the Board of Trustees. This Committee shall prepare a budget covering the activities of the Councils and submit the same to the Board of Trustees for approval.

Article XI—Committees

Section 1 *Appointment.* The following Standing Committees shall be appointed by the President: Committee on Nomination of Officers, Committee on Nomination of Assembly Delegates, Committee on By-Laws, Committee on Resolutions. The President shall designate the Chairman of the Committee on By-Laws and the Committee on Resolutions. All other Committees shall be appointed by the Chairman of the Coun-

cils, with the exception of such special Committees as the Assembly, the House of Delegates, or the Board of Trustees may direct the President to appoint. The President shall notify the members of all standing Committees of their appointment.

Section 2 *Vacancies.* The President shall have power to fill vacancies in any Committee other than a Committee appointed by the Chairman of a Council.

Section 3 *Quorum.* A majority of the members of any Committee shall constitute a quorum.

Section 4 *Committee on Nomination of Officers.* The Committee on Nomination of Officers shall consist of five members who at the time of their appointment shall be members of the House of Delegates, each of whom shall hold office for five years, and each President shall appoint one member of said Committee immediately after he is inducted into office, provided that following the meeting of 1937 the President shall appoint five members, one of whom shall hold office for one year, one for two years, one for three years, one for four years and one for five years. Thereafter, succeeding Presidents shall appoint one member of said committee to hold office for five years. The senior member of the Nominating Committee shall be chairman. Any member of the Committee may be removed by the unanimous vote of all members of the Board of Trustees who shall be present at any meeting, or by a majority vote of members present at any meeting of the House of Delegates, provided notice of said proposed action shall be given prior to the meeting.

The Committee on Nominations shall nominate to the House of Delegates at the annual meeting the names of candidates for President-Elect, three Vice-Presidents, Treasurer, and members of the Board of Trustees. Other nominations for any or all of these offices may be made from the floor of the House of Delegates.

Section 5 *Committee on Nomination of Assembly Delegates.* The Committee on Nomination of Assembly Delegates shall consist of five members, each of whom shall hold office for five years and each President shall appoint one member of said Committee immediately after he is inducted into office. The senior member of the Nominating Committee shall be chairman. Any member of the Committee may be removed by unanimous vote of all members of the Board of Trustees who shall be present at any meeting. The Committee shall nominate to the Assembly members of the House of Delegates to be elected that year.

Section 6 *Committee on By-Laws.* The Committee on By-Laws shall consist of five members, each of whom shall hold office for five years, and each President shall appoint one member of said Committee immediately after his induction into office, provided that following the annual meeting of 1937 the President shall appoint five members, one of whom shall hold office for one year, one for two years, one for three years, one for four years, and one for five years. Thereafter the succeeding Presidents shall each appoint one member of the said Committee to hold office for five years. The Committee on By-Laws shall consider and report on all proposed amendments to the By-Laws.

Section 7 *Committee on Resolutions.* The Committee on Resolutions shall consist of five members who at the time of their appointment shall be members of the House of Delegates, each of whom shall hold office for five years and each President, immediately after his induction into office, shall appoint one member of said Committee, provided that following the annual meeting of 1937 the President shall appoint five members, one of whom shall hold office for one year, one for two years, one for three years, one for four years, and one for five years. Thereafter the succeeding Presidents shall each appoint one member of said Committee to hold office for five years.

Article XII—Amendments

These By-Laws and the Articles of Association may be amended by the affirmative vote of two-thirds of the Active Personal members and voting representatives of Active Institutional members present at any session of the Assembly, at which at least one hundred such members are present and voting, either in person or by proxy. A proposed amendment must be approved in writing by not less than twenty members of the Association and filed with the Executive Secretary at least ninety days prior to the meeting at which such amendment is to be considered. The Executive Secretary shall refer the proposed amendment to the Committee on By-Laws and shall cause notice of such proposed amendment to be given to the members of the Association by publication in the issue of the official journal of the Association immediately preceding and not less than 10 days prior to the meeting at which the amendment is to be considered. The Committee on By-Laws shall report the proposed amendment to the House of Delegates and the House of Delegates shall in turn submit the proposed amendment with its recommendations to the Assembly for approval or disapproval as herein provided.

The Accrediting of Schools of Nursing

The activities of the Committee on Accrediting of the National League of Nursing Education are progressing gradually toward the ultimate objective for which this project was initiated. On October first, Clara Quereau, former Secretary of the Board of Examiners of New York State, assumed the responsibilities of full-time Secretary to the Committee. With this appointment it is expected that the work will move forward more rapidly.

The nurses, who have consented to serve on this Committee, represent institutions of various types and widely distributed geographical areas.

Executive Committee: Anna D. Wolf, Chairman, New York Hospital, New York City; Stella Goostray, Vice-Chairman, Children's Hospital, Boston; Elizabeth Burgess, Teachers' College, New York City; Bernice Anderson, Mountainside Hospital, Montclair, New Jersey; Nellie X. Hawkinson (ex-officio), University of Chicago, Chicago; Clara Quereau (ex-officio), 50 West 50th Street, New York City; Claribel A. Wheeler, 50 West 50th Street, New York City.

Members at Large: Helen Lehman, Baylor University Hospital, Dallas, Texas; Elizabeth Odell, Evanston Hospital, Evanston, Illinois; Edna Peterson, Jewish Hospital, St. Louis, Missouri; Charlotte Pfeiffer, Stuart Circle Hospital, Richmond, Virginia; June Ramsey, Harper Hospital, Detroit, Michigan; Sister Mary Laurentine, St. Francis Hospital, Pittsburgh, Pennsylvania; Sister Mary Berenice, Marquette University, Milwaukee, Wisconsin; Olive Slocum, Hospital of the Good Samaritan, Los Angeles, California; Harriet Smith, Harborview Hospital, Seattle, Washington; Daisy Dean Urch, College of Saint Teresa, Winona, Minnesota.

It is the clear conviction of the National League of Nursing Education that through the accreditation of schools the preparation of the nurse and the quality of nursing service in the community can be improved. Toward this end and with the belief that the council of all related organizations is of vital importance in this development, invitations were extended to the American Hospital Association, the American College of Surgeons, the American Medical Association, the National Organization for Public Health Nursing, and the American Nurses' Association, to appoint representatives to serve as consultants to the Committee on Accrediting. The interested response of these organizations is exceedingly gratifying and with the advice and help of their able representatives it is believed that a plan which will be mutually beneficial to all concerned will be evolved. The list of persons appointed by these associations follows:

Representing the American Hospital Association: Nathaniel Faxon, M.D., Massachusetts General Hospital, Boston; Reverend John Martin, St. Barnabas Hospital, Newark, New Jersey.

Representing the American College of Surgeons: M. N. Newquist, M.D., 40 East Erie Street, Chicago.

Representing the Council on Medical Education and Hospitals of the American Medical Association: William D. Cutter, M.D., 535 N. Dearborn Street, Chicago.

Representing the National Organization for Public Health Nursing: Miss Marion Howell, 2063 Adelbert Road, Cleveland, Ohio.

Representing the American Nurses' Association: Mrs. Ethel Clarke, Bridgeport Hospital, Bridgeport, Connecticut.

The Committee has also been fortunate in obtaining the help of three outstanding representatives from the field of general education as consultants. These are: George A. Works, Professor of Education, and Dean of Students and University Examiner, the University of Chicago, and Secretary of the Commission on Institutions of Higher Education of the North Central Association; Edward S. Evenden, Professor of Education, Teachers' College, Columbia University; and Father Alphonse Schwitalla, Dean, St. Louis University School of Medicine, and President of the North Central Association.

A conference with the consultants to the Committee on Accrediting was held in April, at which time general principles underlying the accreditation of schools in other fields were discussed. A second conference will be held on October 30 when plans for the coming year will be formulated. Announcements will be made from time to time of the steps under consideration so that all those concerned may be kept informed of the progress being made.

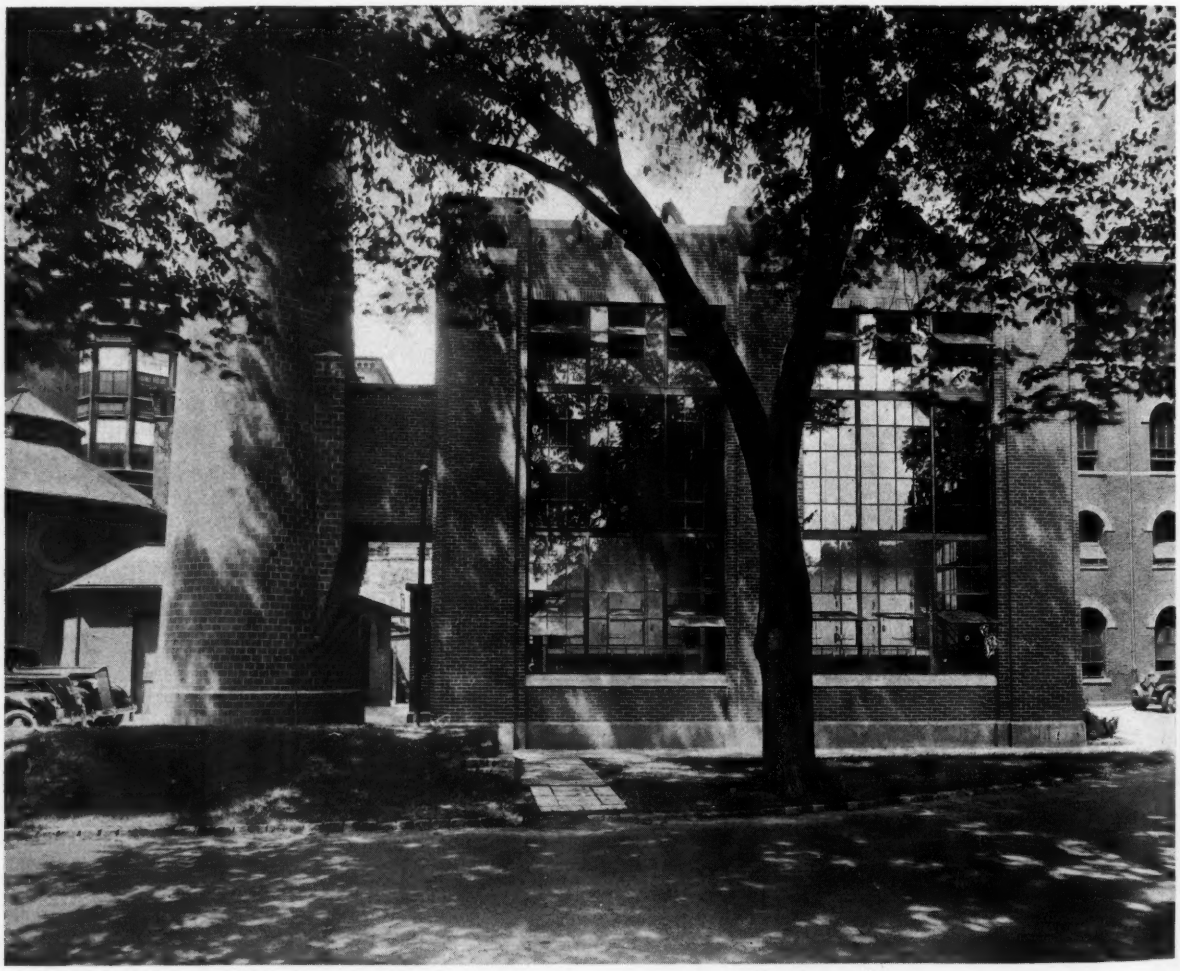
Modern Boiler Equipment for the Rhode Island Hospital

D. D. EAMES, Boston

TWO 350 H.P. water tube boilers were placed in service at the Rhode Island Hospital in March, 1937. Located near the center of Providence this hospital has been serving its community since 1863. During the intervening years there have been, of course, many changes in the heating and power arrangements but the present power plant still occupies the site of the original heating plant. At the beginning of 1936 the boiler plant contained three Babcock & Wilcox long drum boilers, two of which were fairly new. The third boiler had been condemned by the insurance company as unsafe for longer service. Inasmuch as the capacity of all three boilers was necessary for the requirements of the hospital the problem instantly arose as to how the third boiler should be replaced. Other considerations necessarily entered into this problem, particularly that of draft

The Author

● **D. D. Eames is a prominent consulting engineer in the Northeast. This article is of special interest to institutions contemplating changes in their power plants.**



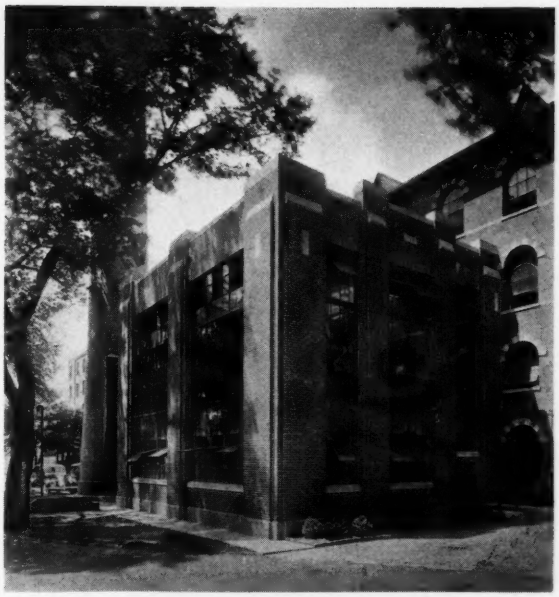
New boiler house showing (through the windows) the ends of the new boilers

and chimney capacity. The arrangement of the boiler plant, with reference to the chimney, was very unusual, the chimney being located on rising ground on the axis of the main hospital building and about 250 ft. away from the boilers. In addition to the problem of draft there were the problems of space, spare capacity, feed water purification and the preservation of the light and ventilation in the upper stories of the boiler house building which are occupied by the laundry.

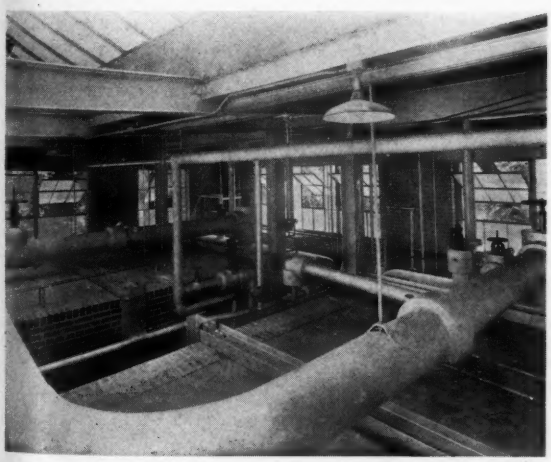
The hospital engaged the service of a consulting engineer to analyze the problem and make recommendations. These recommendations were embodied in a report containing a full discussion of the problem, sketch plans, and estimates of cost of the proposed work. After careful consideration by the hospital authorities, and modification of the proposed plan to suit improvements brought out by the discussion, the new work was authorized. The three old boilers were arranged in one double and one single battery, the single battery being the condemned unit. These boilers faced the front of the building with a firing aisle about 12 ft. wide. It was decided to build an extension on the front of the building and install new boilers facing the original boilers, thus making a single firing aisle for the two sets of boilers. By this method the size of the new building was kept at a minimum and certain other features worked out in a favorable manner.

Construction of New Building and Chimney

Construction on the new building started in July, 1936. The building is a brick structure with steel frame and concrete roof. The floor is at the same level as the old boiler room floor, which is about 30 ins. below the outside grade. Foundation conditions were not favorable, the soil for a depth of about 20 ft. being fill and soft sand, with mud below to a total depth of about 50 ft. A new radial brick chimney 150 ft. high by 6 ft. in diameter was built for the new boilers. The chimney was supported on a cluster of fifty-two piles, averaging 40 ft. in length and capped by a concrete footing. The building and boilers were supported on spread footings without piles but designed for a very moderate soil pressure.



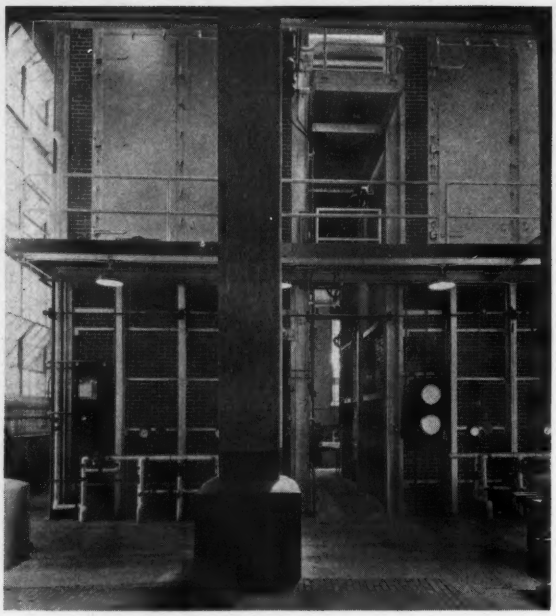
New boiler house and chimney. A brick and concrete building with steel frame



Interior of new boiler house above the boilers showing steam and feed water piping and the lighting and ventilating characteristics of the building

The Boilers

The principal equipment installed in the new building consists of two Babcock & Wilcox cross drum boilers designed for 200 lbs. steam pressure. All arrangements have been made so that these boilers can be operated at 200 per cent rating or 700 H.P. each. They are fired with steam atomizing oil burners, the burners being located under the low end of the tubes. The boilers are set singly with solid wall settings except the fronts which are air-cooled. The air for combustion enters through openings at the top of the wall, passes down through the wall spaces and then under the furnace floor to the point of admission to the furnace itself. This arrangement of air circulation provides air cooling for those parts of the furnace walls where it is most needed and avoids the expense of a completely air-cooled setting. The boilers are equipped with necessary instruments to guide the operators and a full combustion con-



Interior of new boiler house showing boilers, instrument panels, fuel oil piping, access galleries and other details

trol system for the burners and draft keeps the operation at its most efficient point at all times.

The Feed Water Equipment

After the two new boilers were in service the old boiler was removed and in this space was located the feed water equipment for the entire plant. The original plant had a small returns receiver and two duplex boiler feed pumps. One of the long drums of the old boiler was set up as returns receiver, working in series with the old receiver, thus giving a large storage capacity and preventing waste of hot water. One of the old duplex pumps was moved to the new pump room space and a motor driven centrifugal feed pump was added. The remaining duplex pump was left in its original position and can still be used as emergency equipment. In addition to the boiler feed water equipment a new Whitlock laundry water heater was installed in this same pump room space. This is a 3,000 gallon storage type heater of Everdur metal set on legs in a vertical position above the new feed water receiver.

The two old boilers will continue to use their original stack and the long connecting flue which passes below ground and partly under buildings in its course from boiler house to stack. This flue or tunnel is about 3 ft. wide by 6 ft. high, built of dry masonry, and on account of the difficulty of examination and maintenance its true condition was very uncertain. The operation of the new boilers afforded an opportunity, the first in many years, for examining and cleaning the underground flue. It was found to be partially filled with soot, but was otherwise in fair condition. The draft afforded by this old chimney and flue is sufficient to run the old boilers at nearly 200 per cent of rating, which is all that is required.

As a result of this work the Rhode Island Hospital now has a strictly modern and efficient boiler plant with ample capacity for its needs for many years to come. It has spare capacity so that one or more boilers can always be in reserve with opportunity for repairs and maintenance. The new boilers are set over furnaces with ample capacity to give good combustion which was not true of the old boilers. Substantial operating savings are expected, therefore, from the new plant.

The design and supervision of construction of this work were carried out by the writer, and for the successful outcome of the work acknowledgments are due to the hospital officials who cooperated wholeheartedly at all times: Mauran S. Pearce, chairman of the Building Committee; Dr. William O. Rice, superintendent; Everett A. Greene, comptroller; W. H. Fowler, chief engineer, and H. J. Wildgoose, operating engineer.

A New Textile Water Proofing Agent

A recent research in the water proofing of textiles has led to the development of emulsifiable waxes which may be used in the laundering process and between washings at least, render the fabric moisture-resistant or repellent and stain resistant.

The water proofing agent comes in solid, paste or emulsion form, and may be used in the last washing operation or in conjunction with the starching process. After ironing, the wax coats the individual thread and protects it against the penetration of moisture or of stains.

According to J. B. Crowe, writing in the Starchroom Laundry Journal, water proofing action enables the fabric to hold its finish longer and may lengthen its life as the lubrication of the surface of the individual threads will decrease the friction wear between adjacent threads.

Bulgaria plans to build two hundred fifty maternity hospitals during the next few years, in an effort to eliminate heavy mortality among newborn infants due to present lack of sanitary facilities.

Checking the Operating and Maintenance Cost of the Mechanical Division

CHARLES F. NEERGAARD, New York City

IN THE average hospital organization the engineer is responsible for the maintenance of the buildings and grounds as well as the operation of the mechanical plant.

Building repairs and redecorations present no peculiar problems. They are largely matters of common sense, sound spending, and expediency to check depreciation in its early stages and to keep up the hospital appearances.

The public is, however, more sensitive to a broken shade or peeling paint than to a leaking steam valve or dirty boiler so it follows that the engineer must give first consideration to the shade and paint while the valve blows steam and the heat from the boiler fires goes up the chimney.

The Power Plant

The *maintenance* and *operation* of the power plant and mechanical equipment is another story. In the evolution of the modern hospital its machinery has come to be about as complicated as a battleship. The general tendency of the designing engineer to exaggerate factors of safety, breakdown reserves, and automatic controls has given many a hospital much that it does not need, does not use, and cannot afford.

Not many of us are endowed with mechanical background or experience. The average superintendent takes the power plant as he finds it, hires the best engineer the budget will allow to run it and is satisfied as long as the plant continues to function without shut downs. He has no yardstick to measure abnormal deterioration of boilers, pumps, and machines as these do not show on monthly bills. He is not apprised of such damage until the boiler inspector orders a boiler shut-down for repairs or a pump refuses to turn over. He knows what the plant cost to run last year and is delighted if there is a saving this year, —but how can he determine *what it really ought to cost?* I am fortunate in being able to present an analysis of the cost of power, light, and heat, of fourteen hospitals for 1936. These figures were compiled by the accountant who regularly audits the hospital books. They are identical in content and while the hospitals vary in size from 47 to 475 beds, in age and in the design and type of the mechanical plants, the wide spread in the costs, particularly among the larger institutions of nearly 100 per cent, is challenging and checks in a three-way comparison. The percentage which power, light, and heat bears to the basic operating cost ranges from 8½ per cent to 16½ per cent.

The cost per bed from $76.80 a year to $173.75.

The patient per capita costs range from 35 cents in a small hospital and 42 cents in a large one to a high of 92 cents a day.

These figures tend to confirm the statement which has been often made that in the average hospital there is no other department which offers such opportunities for substantial and continuing economies as the mechanical plant. It is often the only place where major savings can be effected without detriment to the care and comfort of the patient.

During the depression studies of hospital operation aimed at reducing deficits disclosed many unsuspected leaks in the Mechanical Division running into thousands of dollars.

The causes, to a very large extent, were due to poor design.

One cannot but conclude that when a Board of Trustees goes into a building operation it should give as much consideration to the selection of its consulting engineer as to its architect. It has long been the custom for the architect to employ the engineer and pay him out of his own fee. If past experience is worth anything the planning board should be on a different basis. The architect should get his full fee and the consulting engineer should be investigated, selected, and paid by the board direct.

Here are some facts gleaned from studies of over a score of hospitals:

The Author

● **Charles F. Neergaard is a well known hospital consultant in New York City, and is chairman of the Committee on Hospital Planning and Equipment of the American Hospital Association.**

Presented before the Section on Mechanical Division of Hospital Operation. American Hospital Association Convention, September 16, 1937.

ANALYSIS OF COST OF POWER, LIGHT, HEAT, AND WATER OF 14 HOSPITALS FOR 1936

No. Hospital	Beds	Power plant	Cost per bed	Percentage	Cost per day
1	475	$66,181	$139.32	8.93	.54
2	420	71,249	169.62	13.02	.78
3	350	47,105*	134.57	11.54	.70
4	302	46,406*	153.64	13.79	.68
5	251	21,549*	85.85	8.96	.42
6	226	39,051*	172.56	13.50	.64
7	175	25,096*	143.40	16.51	.92
8	143	24,791	173.35	13.32	.90
9	120	17,869*	148.90	13.09	.64
10	105	14,119*	134.47	8.55	.63
11	98	7,528*	76.80	7.20	.35
12	76	6,848*	90.10	9.73	.52
13	50	8,263	165.26	12.85	.69
14	47	5,640*	120.00	13.39	.63

*Includes cost of water.

Almost without exception the buildings were overheated, many having up to 50 per cent more radiation than was needed. In most cases there was a continuous flow of steam from high pressure boilers with no controls other than to maintain pressure. Results: Too much heat and open windows. In most plans when the simple and relatively inexpensive temperature controls recommended were installed there were savings of 30 per cent of the cost of heating.

Inconsistencies in Plant Operation

Many inconsistencies were found: Pumps and compressors being driven by purchased electricity where plenty of live steam was available and being wasted.

A lack of adequate feed water heaters with filters to remove oil, oxygen, and impurities from the feed water.

Steam being exhausted to the atmosphere while raw, cold make-up water was fed into the boilers. The hot water from refrigerator condensors passed into the sewer although it was clean and should have been used in the boilers or hot water supply. Several hospitals were wasting almost as much water as they used and they were paying for it too.

Laundry costs varying widely and rarely a meter on the steam main; the production of live steam which few hospitals record with any degree of accuracy ranging from 48 cents to 93 cents per thousand pounds!

Many instances were found of dirty boilers, poor firing, poor combustion with shocking waste of fuel.

Traps on radiators and equipment seemed invariably neglected. Leaky traps permit live steam to pass through the returns to the return tank and thence to the roof. One engineer complained that the three-inch vent from his return tank was not large enough and proposed to put in a larger one. He never thought of fixing his leaky traps.

His hospital had boilers but four years old, the shells and tubes of which had deteriorated to the danger point through neglect and abuse. The engineer was not entirely to blame as the power house was so poorly planned, so small, and so crowded that it was almost impossible for him to get at the boilers for cleaning.

Another hospital is operating with two modern 250 HP boilers although its summer load varies from 20 to a maximum of 75 HP. Three 125 HP boilers could have been installed originally for half the cost and would have operated much more efficiently.

Mechanical Hazards

Many mechanical abuses represented real hazards. Two boilers were found with split and buckled shells indicating that explosions had been narrowly averted.

There were elevators carrying patients which would not have been trusted to carry freight in a well-run factory.

Ammonia refrigerators and high-pressure ammonia lines were being operated where a crack or break would put the entire hospital out of commission.

The electrical plant was frequently ill-considered. There were several hospitals which had generating plants which should be shut down while there were others which would profit by their installation. The Public Service companies have several rates but there is only one which will give the minimum.

While many of the conditions cited were due to faults in the original design the significant fact is that the operating engineer had allowed them to continue, and the superintendent when he was aware of them did not recognize their importance.

Here we have a composite picture of the mechanical ailments of a group of sick hospitals which had called for help. It is no general indictment of hospital engineering or hospital management; yet, if cost comparisons have any significance the mechanical division deserves considerably more attention in many institutions.

What can a hospital do about it?

First there should be a *competent diagnosis* and this calls for a *competent* consulting engineer familiar with hospital needs.

Concerning the plant:

Is it properly designed?
What is it costing to run?
What alterations or improvements should be made?
What will they cost?
What will they save?

Concerning the plant engineer:

Is he up to his job and handling it well?
Is he using the most economical fuel and firing properly?
Is his equipment being kept in good order?
Is he able to check the cost and use of steam?

The consulting engineer should make definite recommendations as to needed improvement and controls in the plant and its operation and should supervise their installation. He should establish a proper basis of figuring operating costs. He should be retained to make quarterly inspections and reports to the superintendent and board.

In my experience the expense of this procedure will be but a fraction of the savings in almost any hospital, provided the consulting engineer is competent and conscientious and such are to be had.

Maintenance and Equipment

The plant engineer has unusual responsibilities. In a hundred-bed hospital the equipment in his charge represents an investment of from $150,000 to $200,000. He is largely on his own with little, if any, competent supervision. In addition to the mechanical resources with which any good engineer should be familiar and able to keep running—power, heat, plumbing, elevators, kitchen laundry equipment, and electrical services, there are scores of technical units, sterilizers, laboratory and therapeutic, etc., which must be kept clean and accurately adjusted.

Many an engineer can take them apart but cannot always put them together again.

An axiom too frequently overlooked which it is pertinent to emphasize is that a thoroughly competent plant engineer is worth all the hospital has to pay him.

How can the superintendent exercise proper control of his maintenance? The chief problem of the modern executive is too many problems. The Consulting Engineer-Audit as suggested will help him solve the problem of controlling his power plant operating costs. He would need certain mechanical controls. The engineers tell me that where there is a boiler plant of 100 HP the equipment should be:

a Thermostatic temperature control of the heat in each building

b A stack recording thermometer which indicates when the tubes need cleaning

c A CO_2 recorder which will indicate improper firing

d A steam meter for the laundry

The records of fuel burned and water and current consumed should be submitted weekly.

Plant Inventory

Some years ago I suggested a plan for applying the principles of the Preventive Health Examination to the mechanical plant which, in the light of subsequent experience, still appears sound.

Just as we have perpetual inventory cards for each item stocked in the central storeroom we should have a card for each piece of equipment on which is recorded its history and cost of keeping it running. Just as we have specifications

for each item of supplies which we buy we should have filed with the card of each piece of apparatus precise information from the manufacturer for its maintenance and adjustment.

Just as our stock inventory cards must be constantly checked by the buyer so that supplies will be on hand when needed so the mechanical equipment should be routinely inspected and intelligently serviced to keep it tuned up to highest efficiency.

The engineer must know *what* to do and *how* to do it when he *can* do it and when he should call in the service expert. Too frequently his own ideas are at variance with the manufacturer's instructions even when he has them before him. How many tales the factory service men could tell on that subject if they dared! I have heard them many times.

The shell of an autoclave collapsed. The manufacturer was blamed, of course, but he found the chamber gauges were not properly equalized.

Water sterilizers cannot work if the filter stones are not regularly cleaned.

Flat work ironers must have the specified steam pressure and the rollers be properly and evenly padded; and steam chests properly vented.

It is common practice to operate steam traps with the insides removed because of mechanical trouble. This wastes more steam than is utilized.

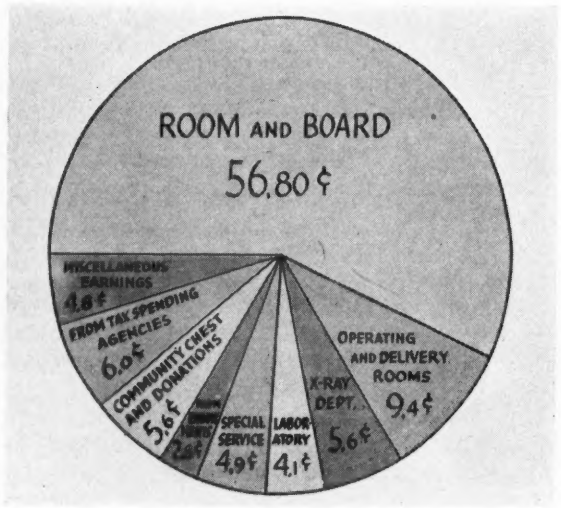
A manufacturer of unit ventilators was told that his equipment was not satisfactory. He found one fresh air damper frozen shut so that only recirculated air was being used and that none of the filters had been taken out and cleaned in six months, although they required weekly attention.

Such conditions can be corrected only by substituting controlled systematic inspection and competent servicing for haphazard methods.

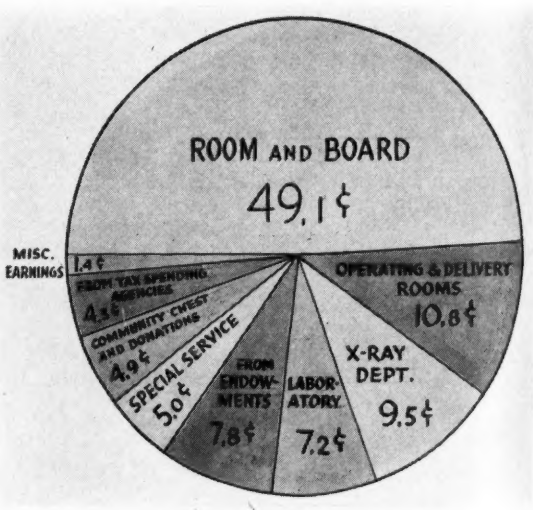
My suggestion is that, in addition to the inventory cards for each unit and correct information for its care, an *Inspection Report Form* be prepared listing by floors or buildings each piece of apparatus requiring regular adjustment, lubrication and cleaning. A tour of inspection should be mapped out which will insure the entire plant being covered by the engineering department in five or six days.

A weekly report should be turned in to the superintendent noting in simple symbols the condition of each item, the work done or needed. The hospital, in its mechanical plant, does not need and cannot afford detailed industrial cost accounting. What it does need is simple effective controls and occasional cost check-ups and it cannot afford to have less.

The Hospital Income Dollar



Distribution of the income dollar in a group of hospitals averaging over 100 patients daily



Distribution of the income dollar in a group of hospitals averaging under 100 patients daily

The Role of the Hospital in Reducing Maternal Mortality

ARTHUR W. BINGHAM, M.D., F.A.C.S., East Orange, New Jersey

THE responsibility of the hospital in maternal welfare is increasing each year for the following reasons:

1 More obstetrical patients are being cared for in hospitals every year.

2 The well organized obstetrical hospital unit is the ideal place to conduct an obstetrical case.

It is therefore important at this time for every hospital admitting obstetrical cases to check its equipment and personnel in order to make sure they are adequate for the proper care of these patients. Public opinion is becoming more and more in favor of the hospital as the safest place for maternity care. It is up to the hospital to provide that safety. Of the patients treated by the Maternity Center of the Oranges in 1923, 25 per cent were delivered in hospitals; in 1936, 83 per cent. In East Orange in 1936, 90 per cent of the births were in the hospitals; in Newark 85 per cent.

The fact that in certain sections more maternal deaths may have occurred in hospitals than in the homes only shows that when a case becomes serious the patient is sent to a hospital while if normal she may remain at home. Few give any consideration to the idea that if she had been in a hospital the complication might not have been so serious.

Planning and Organizing an Obstetrical Department

In planning and organizing an obstetrical department the following points should be kept in mind:

1 Isolation from other patients, preferably in a separate building. A separate building is the ideal arrangement. The private rooms and wards must be isolated from other departments. The delivery rooms should not be in the same unit with the operating rooms as is frequently planned, they should be in the obstetrical department, entirely away from surgery. They should be in a group with labor rooms separated from the private rooms and wards by soundproof partitions. The hospital which treats maternity cases in close proximity to other patients is not giving the patient a fair chance. It may be a question of finances but the necessary funds can usually be obtained if the public is acquainted with the need. Do not be satisfied until your hospital has an isolated obstetrical unit.

The nursing staff must be separate and nurses in other departments should not be allowed to visit the obstetrical unit. Isolation for obstetrical visit the obstetrical unit. Isolation is imperative for safeguarding the obstetrical patient.

2 Supervision of the department by a competent obstetrical staff with provision for an ample courtesy staff of general practitioners. Whether large or small, the obstetrical department must have supervision. The obstetrical hospital can best serve the community by having a large courtesy staff of general practitioners who can bring their patients and treat them under supervision. The closed hospital may have better statistics but it is not aiding the campaign for better obstetrics to the fullest degree. If the general practitioners are not allowed to attend cases in our hospitals they must take them to nursing homes or keep them in the home. In neither of these places will they get any supervision. By attending cases in a supervised hospital, the physician constantly adds to his knowledge of obstetrics. The contact is educational and reacts favorably on the patient as well as the physician. It is one of the important factors in promoting maternal welfare.

3 Standard routine procedures to be adopted by the obstetrical staff and followed by all physicians attending cases, both ward and private. So many obstetrical cases are normal that routine procedures can easily be carried out. They greatly facilitate the nursing efficiency and make it possible for a nurse to care for more patients. The procedures should be plainly posted on each floor so that attending physicians may see what is being carried out. The patients appreciate that

The Author

● Arthur W. Bingham, M.D., is President of the staff of the Orange Memorial Hospital, Orange, New Jersey, and is Chairman of the Committee on Maternal Welfare of the Medical Society of New Jersey.

Presented before the General Session, American Hospital Association Convention, September 15, 1937.

there is less friction when routines are used. Of course in special conditions special orders may be given. In the Orange Memorial Hospital recently there were 19 patients on one floor attended by 17 different physicians. There was no confusion for routine procedures were being followed.

The Committee on Maternal Welfare of the Medical Society of New Jersey recommend the following rules to be carried out in every hospital in the state taking obstetrical cases:

1 Gloves must be worn for all examinations and deliveries; hands must be scrubbed for five minutes before putting on gloves.

2 Do as few vaginal or rectal examinations as possible.

3 Except in postpartum emergency, the doctor must be present when pituitrin is given. If given ante partum, the dose must not exceed Mv, and the patient must be on the table ready to deliver. Reasons for giving pituitrin must be recorded.

4 The obstetrician, anesthetist, and nurses must wear masks during examinations and delivery.

5 All cases of infection to be transferred from the Maternity Department.

6 No douches or intravaginal treatments should be given in the maternity section.

7 All normal babies are to be put on the regular feeding routine.

8 All circumcisions must be done with strict surgical asepsis. Hands must be washed the same as for any other surgical procedure.

9 Consultation with a competent consultant is required in all of the following cases:

a All prolonged labors (24 hours)
b Cases requiring cesarean sections
c Breech presentations (unless very premature)
d Difficult forceps cases or versions
e Occiput posterior presentations requiring forceps or version
f Other complicated cases:
Eclampsia, placenta previa, etc.

4 Rules requiring consultation in abnormal cases. This is a very important provision. If each physician is going to treat his abnormal cases as best he can without advice or assistance progress will be very slow indeed. Under the protection of the hospital he will undertake procedures he is unable to carry out without disastrous results. Consultations should be free unless the patient is well able to pay a moderate fee. For the sake of maternal welfare petty jealousies must be put aside and a helping hand given to any physician who needs it in an abnormal case. In some hospitals the rule is to call a member of the obstetrical staff while in others any competent consultant may be called. The calling of a consultant in an abnormal case not only helps the patient but gives the physician a practical demonstration in obstetrics. When once this custom is established there will be very little trouble in enforcing the rule.

5 Provision for isolation of infected cases. If a case is infected on admission or becomes infected, it must be taken from the obstetrical department unless in a larger hospital there is a special place provided for such cases. As a rule it is safer to move the patient to the general medical or surgical department to avoid contamination of the normal obstetrical patients. There should be a special isolation nursery with cubicles for babies with sore eyes, syphilis, impetigo, or other infections. They should be attended by special nurses wearing a separate pair of gloves for each case, and gowns as well as masks should be worn by all entering this nursery as in other nurseries.

6 Adequate records kept in order to study cases and tabulate results in the annual report. The record sheets should be concise but containing all the essential information. If the records are too complicated it will be difficult to get the courtesy staff to fill them out properly. If a physician is not willing to keep a reasonable record he should be denied hospital privileges. Records should not be filed away until completed. Every hospital should make out an annual obstetrical report so as to properly evaluate its results. In New Jersey, the Maternal Welfare Committee receives an annual report from every hospital in the state taking obstetrical cases.

7 Obstetrical staff conferences held regularly and open to all physicians interested. Monthly conferences are most valuable as here details are discussed regarding causes of complications, how to prevent them, and how to treat them, as well as reasons for maternal deaths. Any physician may occasionally make an error in judgment or technique but if he attends such conferences he is less likely to do so. Attendance in some hospitals is made obligatory for courtesy staff as well as regular staff members.

8 Prenatal clinics as part of a comprehensive community system of prenatal care. The hospital which treats in its clinic only those cases which are to be cared for in its ward is only partially doing its duty to the public.

The community maternity center consists of a visiting nursing association working in conjunction with hospital or other prenatal clinics. The

organization is responsible for all the public prenatal work for the community. The prenatal clinics may be in different hospitals all part of the same organization.

The prenatal work is divided between prenatal clinics and prenatal nurses in the field. This method, modeled from the Maternity Center of New York City, is well suited for suburban or rural communities where there is not enough work for more than one or two clinics and where the distances prevent patients making regular visits to the clinic, but may be adapted to any municipality by simply multiplying the units. The nurse who is specially trained in prenatal work goes to the home of the patient, takes the blood pressure, makes a simple urinalysis, gives advice and leaves printed instructions. Four or five times or oftener if necessary, the patient is sent to the clinic. There she is examined by a physician to determine the presentation of the child and size of pelvis. The heart, lungs, teeth, and tonsils are examined, the weight and blood pressure are checked up, a complete urinalysis made, and a Wasserman taken. A complete history is recorded. The patient has a history card on which the nurse records her findings and which the patient takes to the clinic for the doctor to add his record. The card is taken to the hospital if the patient goes there for confinement or if remaining at home she will have it there for the convenience of her physician.

There Are Four Groups of Patients

Group 1 Those who intend to go to a hospital. They will be cared for and referred to any hospital they wish to enter.

Group 2 Those who have engaged a doctor or intend to have one but are having no prenatal care owing to the oversight of the doctor or the patient's inability to pay for it.

Group 3 Those who intend to have a midwife. These patients are watched carefully for complications and if any arise the condition is tactfully explained to the midwife and patient, and hospital care is advised. In case a physician or midwife has been engaged, their consent must be obtained before the patient is listed for treatment and any abnormalities reported to them.

Group 4 Those who have not any arrangements. These patients are advised regarding their cases and referred to a hospital or to a physician interested in obstetrics.

No patient who has a physician is given prenatal care without the physician's consent. No patient who can afford a physician is referred to a hospital for confinement unless abnormal conditions are found and then only after consultation with the physician or midwife in charge. By means of this simple scheme the obstetrician at the clinic and the prenatal nurse in the field work together as part of the same system keeping in touch with the patient wherever she may live yet not interfering with her plans for her confinement.

The points suggested are no theories but are being carried out in many hospitals today. Yet, I am sure, there must be some hospitals which will require considerable overhauling before they will fit into the scheme suggested.

Home Deliveries

Having delivered many patients in the home in former days I am well aware of the advantages and disadvantages. Compared with the first class obstetrical hospital there are no advantages in home deliveries. To be sure some patients might be more comfortable at home but no amount of comfort will make up for faulty technique with resulting complications. There are many disadvantages except possibly in rare cases where practically everything has been brought into the home including assistants. As very few patients can afford this, it need not be considered.

Some of the disadvantages are:

1 Low, soft bed to work on unless a table has been procured.
2 Poor lighting facilities, seldom in the right place.
3 Very little at hand for emergencies.
4 Impossible to make a good repair unless extra equipment and assistants are brought in.
5 Almost impossible to carry out aseptic technique.
6 Modern apparatus for resuscitation of baby not at hand.
7 Equipment for combating hemorrhage not at hand.

Why subject the patient to the risk?

Any community which has an adequate community obstetrical hospital unit and a community maternity center has taken important steps in advancing maternal welfare.

Maternal Welfare Work in New Jersey

Organized maternal welfare work in New Jersey began in the Oranges in 1921 when the Maternity Center Association of the Oranges and Maplewood was organized. Two years later, in 1923, the Essex County Maternal Welfare Commission was appointed by the Essex County Medical Society.

Since its organization, the maternal mortality

in Essex County (the largest county by population in the state) has dropped from 6.9 to 3.5 per thousand live births. On account of these results, the Medical Society of New Jersey appointed a committee on Maternal Welfare in 1931. The state committee aided in organizing maternal welfare committees in every county and directed the maternal welfare work of the state. Included in its activities is the investigation of every maternal death in the state. Since 1931, the uncorrected maternal death rate has dropped from 5.9 to 3.7 per thousand live births.

During the past 18 months, the State Department of Health has cooperated with the State Medical Society in giving financial aid to this work with funds received through the Social Security Act.

Not many years ago, all kinds of surgical operations were performed in the home. Now this is done only in a rare emergency; so with obstetrics. The place to handle an obstetrical case safely and efficiently is in a first class obstetrical hospital unit. The drawback is, there are not enough of them. Let us have more of these units so that every expectant mother will have the opportunity of being cared for under the best possible conditions.

Educate your community to back up this proposition. Maternal Welfare work is being carried out all over the United States. Let the hospitals get in the front line and equip themselves to do their part in raising the standard of maternity care. It will take initiative, work, time, and money; but, IT WILL SAVE LIVES.

Mayor LaGuardia Lays the Cornerstone for the $7,000,000 Hospital for Chronic Diseases on Welfare Island

Mayor F. H. LaGuardia on October 5 laid the cornerstone of the partially-completed $7,000,000 hospital for Chronic Diseases on Welfare Island, the largest of its kind in the world.

The mayor asserted he had changed the island's name from Blackwell's to Welfare Island eighteen years ago, at which time he was the newly elected president of the Board of Aldermen. When new names were suggested he strenuously objected to having the word "charity" used. "I don't believe the word 'charity' belongs in government," he said. "The preservation of life and the promotion of happiness are functions of the government."

The plan for the hospital had first been put to him by S. S. Goldwater, M.D., Commissioner of Hospitals.

The mayor said: "Some day it will occur to some one that government must progress as rapidly as science. Just think if a doctor were stopped because he was doing something that had not been done in 1785. Some day the hint will be taken and government will progress as rapidly as science."

Commissioner Goldwater, speaking earlier, said that the modern challenge to medicine was "not the black death of contagion but the yellow peril of chronic disease."

His department, he said, was making a radical change in the treatment of chronic invalids by subjecting them to treatment and study rather than acting merely as custodians.

Other speakers were Dr. Willard C. Rappleye, dean of the College of Physicians and Surgeons at Columbia University; Homer Folks, secretary of the State Charities Aid Association, and Charles C. Burlingham, president of the Welfare Council of New York City.

The hospital is composed of four identical four-story pavilions capable of housing a total of 1,600 patients. The pavilions are grouped in twos around the administration building, a five-story structure, which will hold offices, kitchen and dining rooms, laboratories and therapeutic and diagnostic divisions. Each floor of the pavilions will have a sun porch running the length of the building.

Also included are a $1,610,000 nurses' home with a bed capacity of 688, and a $268,762 power plant.

The hospital will treat all chronic diseases except tuberculosis, mental ailments, cancer and neurology. The Department of Hospitals will be affiliated with the Columbia University College of Physicians and Surgeons, the Cornell University Medical College and the New York University College of Medicine in the operation of the hospital.

Ultraviolet Light for Air Sterilization in Ward for Infants

A Discussion of Preliminary Work

CHARLES B. MAJOR, M.D., and THEODORE S. WILDER, M.D., Philadelphia

IN THE study of air sterilization it might be interesting to first review in brief an historical resume of the development of sterilization.

a The conception of miasms flourished in the middle ages.
b First scientific demonstration of air-borne infection by Pasteur, 1861.
c Efforts at sterilizing air by Lister and Tyndall between 1861 and 1881.
d Discovery from 1880 to 1900 of transmission by other routes.
e Important experiments by Flugge with droplet infection seemed to refute previous theory.
f From 1900 to 1920 further research led to practical abandonment of theory of air-borne transmission of infection. It was thought that direct or indirect contact could account for all such transmission.
g Certain phenomena such as measles, small pox, and the 1918 influenza epidemic stretched the contact theory to the breaking point.
h Within the past six years there has been an increasing interest once more in air-borne infection proper in contrast with droplet infection.

Resume of Recent Work

Outstanding is the work of Wells, whose research has depended largely upon development of two pieces of apparatus, one the air centrifuge, by which accurate studies can be made on measured volumes of air. The other is an apparatus for producing a suspension of bacteria in the air for purposes of study.

Wells has pointed out the failure in Flugge's experiments, namely that they ignored the factor of evaporation. Droplets larger than .1 mm. in diameter fall to the floor within a short radius. Smaller droplets, however, evaporate in the air, leaving a nucleus consisting principally of the bacteria which they contain. These nuclei become actually a part of the atmosphere, and float for days. Their presence may be demonstrated, after atomizing a culture of organisms in a dark chamber, by shining a strong beam of light into the chamber. Furthermore, their viability may be shown by use of the air centrifuge. These nuclei will permeate all parts of a building in a short space of time.

For instance, at the Harvard School of Public Health a culture of B. Coli was added to the humidified water in the air conditioner in the basement. Many of these organisms were subsequently cultured from the air on each floor of the three story building, though on the third floor the concentration was only 1 per cent of what it was in the basement. A mechanism is thus demonstrated whereby transmission of infection through the air may take place.

Conventional methods of detecting infection of the air have been proved unsatisfactory by Wells, who mentions an experiment where 12 out of 15 culture plates remained sterile after 15 minutes exposure to air known to contain 250 B. coli per 10 cu. ft. To be sure, dust particles containing bacteria will settle at a speed proportionate to their size, and roughly 100 times as fast as droplet nuclei. And so the culture plate method, as indicated by some preliminary experiments of our own, will tend to reveal large numbers of non-pathogenic organisms, molds, etc., while *failing* to give a satisfactory indication of the presence of pathogenic organisms from the human respiratory tract.

The Author

● Charles B. Major, M.D., and Theodore S. Wilder, M.D., members of the staff of the Germantown Dispensary and Hospital, Philadelphia, have conducted a series of experiments in the use of the ultraviolet light for air sterilization in infant wards.

Presented before the Children's Hospital Section, American Hospital Association Convention, Atlantic City, September 15, 1937.

Wells conducted experiments in class rooms under various conditions. One of the points he demonstrated was that sneezing produced a tremendous increase in bacterial nuclei, which become disseminated within 10 minutes to all parts of a 10,000 cu. ft. room, yielding thousands of colonies, mainly of alpha streptococcus on the culture tubes.

He concludes, *"It would seem obvious that in crowded conditions we are breathing one anothers naso-pharyngeal flora, as we once drank each others intestinal flora in the water supply."* Wells suggests the alpha streptococcus for a role similar to that of the colon bacillus in drinking water. A proposal, which he points out, was made back in 1903 by M. H. Gordon.

Viability of Organisms

Studies on the part of Wells on the viability of organisms are not complete, but certain facts have been established. In general, water borne organisms survive in the air for a day or less, in contrast with organisms of the respiratory tract, which survive two days or more. The Pfeiffer B. disappears from the air in a very short time, i. e., about one hour, whereas the B. Subtilis remains for several days. Wells has shown that the influenza virus will persist for an honr, and perhaps longer.

Sanitary Control

The aim of sanitary control is of course to sterilize the air we breathe insofar as it is possible. Various agencies have been proved to have an effect, namely ozone, and various germicidal sprays, but the greatest effect of all has been produced by ultraviolet radiation. (Negative and positive ions in the atmosphere proved to have no effect at all.)

The efficiency of ultraviolet radiations depends on the wave length, the intensity, the length of exposure, and the humidity. The length of exposure is expressed as the velocity of the air current which carries the bacteria; studies in a tunnel system at the Harvard School of Business Administration showed that air passing the light at 5 ft. with a velocity of 220 ft. per minute, was reduced about 50 per cent in its bacterial count, but that even at a much lower velocity, i. e., 30 feet per minute, a few organisms failed to be killed.

The effect of humidity is very striking in that ultraviolet has a killing power at a humidity of 45, which is 10 times its killing power at a humidity of 90. At humidity above 55 to 60 the light appeared to be suddenly less and less effective.

The type of light so far found to be most efficient is a low pressure mercury vapor tube, 93 per cent of whose light is invisible, and of wave length 2537. The life of this burner is 5,000 hours or more. The standard ultraviolet treatment lamp, though having a greater intensity, produces only 63 per cent of its light between wave lengths of 2,500 and 3,130.

Clinical Tests

Most of the data so far secured has to do with artificially produced experiments. There has been very little clinical use of ultraviolet sterilization of air, but that which is in progress thus far has been encouraging.

1. A notable application of the method has received considerable trial at Duke University in the sterilizing of operating room atmosphere. Deryl Hart and his associates were able to demonstrate even with culture plates the presence of numerous staphylococci in the air. They have therefore subjected the region of their operating table to a rectangular battery of ultraviolet lights, which shine directly upon the operative field from above, with the following results:

a. Culture plates have shown that the organisms are effectively destroyed.

b. Postoperative elevations of temperature have been significantly less as a result of the ultraviolet radiations.

c. Postoperative wound infections have been practically eliminated. To be sure, more statistics are needed before the question can be considered proved, but Hart and his associates feel most enthusiastic about their results to date.

2. A second trial of ultraviolet light radiation is being made in a small contagious diseases hospital, with thus far very satisfactory results. In this connection, of course, it should be emphasized that efforts at preventing contact transmission should not be abated.

3. A large children's hospital in the past few months has been making a study of ultraviolet light radiation in one ward, while in an identical control ward alternate patients are admitted.

4. A fourth use has been in air conditioned Pullman cars, where it has been demonstrated that three of these lamps placed strategically in

the air duct will kill 95 per cent of the organisms, despite the fact that the air stream passed the lights at the rate of 1,000 ft. per minute.

During the past 5 months at the Germantown Hospital we have been conducting some preliminary experiments. Until recently we have been without the use of an air centrifuge.

Our data, secured by the culture plate method, is illustrative of the type of information obtainable by this means.

We used three identical rooms, each of which accommodates three small children. These rooms were adjacent, and in the middle room was installed a Hanovia Safety-Air ultraviolet lamp. Plates were exposed in the three rooms at the same time each day for 15 minutes. We found that longer exposure than this resulted in so many colonies that counting them was difficult. Table I gives a list of the different organisms which appeared on the plates, with the totals and average per plate. It will be seen that there were nearly twice as many nonpathogenic organisms as there were pathogens.

Table I (119 Plates)

Organism	*Total number colonies*	*Avg. number per plate*	*Approx. number per 10 cu ft. of air*
Staph. Albus Hemolyticus	298	2.47	29.6
Staph. Albus Non-Hemolyticus	205	1.72	20.6
Staph. Aureus	65	.55	6.6
Strep. Viridans	14	.12	1.4
Strep. Hemolyticus	3	.03	.4
Strep. Non-Hemolyticus	3	.03	.4
Pneumococcus	15	.13	1.6
Microc. Catarrhalis	8	.07	.8
B. Pyocyaneus	2	.02	.2
Sarcinae	351	2.95	35.5
Diphtheroids	341	2.87	34.5
Spreading Molds	319	2.68	32.2
B. Subtilis	82	.69	8.3
Streptothrices	4	.03	.4

With the method we used there was no difference between the number of colonies on plates exposed in the room with the light, and the number in rooms without the light, the former averaging 12.1 per plate, and the latter 12 colonies per plate.

The figures were consistent with one's expectations in regard to visitors' day, in that the average number per plate was 30 per cent higher on visitors' day than on other days. For the increased number of colonies noted on visitors' day nonpathogenic organisms proved entirely responsible.

The plate method proved disappointing in that there was almost no correlation between the type of organisms obtained on the plates, and the organisms cultured from draining mastoid infections, etc., of patients in the room.

A seasonal effect on the type of organisms, such as Hart's work has shown in respect to the staphylococcus, appears to be present. For instance, between April and July there was a sharp and progressive decrease in the number of colonies of pathogens, namely staphylococcus albus and aureus. However, nonpathogens such as molds, diphtheroids, and B. subtilis showed a striking and steady increase with the approach of hot weather. No doubt, in the fall and early winter one would observe the reverse phenomena, namely the progressive increase in pathogens, and decrease in nonpathogens. Such tendencies need to be taken into consideration in evaluating ones results, also the influence on number of colonies of the time of day at which plates or tubes are exposed.

We had an opportunity to compare the plate method with the tube method in eleven short experiments. For this purpose a plate was exposed for 15 minutes beside the centrifuge while the latter was taking in approximately 9 cu. ft. of air. The total number of colonies appearing on the centrifuge tubes was 1,115 in contrast with 105 on the plates. On the former, moreover, 5.1 per cent of the colonies were staphylococcus aureus, whereas on the latter they came to only 2.9 per cent.

Discussion

With the above facts in mind, one wonders why we do not see in our every day clinical experiences more evidence of transmission of disease by this route. There are several reasons for this. In the first place, we know that many harmful organisms cause effects which are not dramatic or striking, and so go unnoticed. Secondly, many persons are more or less resistant to such bacteria. No doubt, this mechanism has much to do with the building up of subclinical immunity by the average person. Thirdly, epidemics of colds, etc., are accepted as a matter of course during the winter season without any proof as to the means of transmission. Fourthly, other factors such as humidity, dilution, outside ventilation, plus decreased viability of the organisms tend to lessen the hazard of this type of infection.

The fact remains, however, that with certain diseases, and at certain times, atmospheric trans-

mission becomes a serious threat. It is well known, furthermore, that disease of the upper respiratory tract which tend to contaminate the atmosphere are by far the most difficult to control from the epidemiological standpoint, diseases such as measles, influenze, pneumonia, colds, throat infections, small pox, etc.

It is too early to speculate regarding the probable usefulness of air sterilization by means of the ultraviolet lamp. Numerous questions still remain to be settled regarding its use, such as—

1. To what extent must it be necessary to control air currents, etc., if the light is to be effective? Conceivably this might mean remodeling on a large scale.

2. In a children's ward what proportion of cross infections are due to physical transfer, what proportion are air-borne?

3. How important are such physical factors as dust, humidity, etc., in relation to the light? So far as humidity is concerned, the light should be most effective during the dry weather of winter, when it is most needed.

4. What is the cost both of installation and maintenance, and what, if any, are the dangers? (It appears probable that these are both almost negligible.)

5. We wish to emphasize that our own experiments are to date entirely inconclusive; that the figures we report are only suggestive of the sort of thing which a larger series of experiments might or might not show, and that as yet we have no basis for stating either that air sterilization is or is not practicable. We feel it is an interesting field for further work, and poses questions which should be investigated, and if possible, answered.

Summary

1. Within recent years it has been demonstrated that true air-borne infection is a constant possibility, and at times the actual main cause of epidemics.

2. What may prove to be a feasible method for sterilizing air, and for measuring the results, has recently been developed, mainly through the effort of Wells.

3. Questions which require a definite answer are, first, whether this method is practical on a large scale, and second, to what extent its use will reduce cross infections in hospitals, in schools, etc.

4. A few preliminary experiments are mentioned here, purely for illustrative purposes, and not as proven facts.

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(Note: The two above references both contain extensive bibliographies.)

Maternity Cases Are Safely Cared for in Our Hospitals

Dr. S. S. Goldwater, New York Commissioner of Hospitals, reported that the maternal mortality for the last yearly quarter had dropped to ¼ of one per cent, in spite of the fact that the municipal hospitals received the most difficult cases.

"It might be assumed," says Dr. Goldwater, "that the maternal mortality in municipal hospitals would be high, but of 4,592 women who were delivered in the city's 13 maternity services, there were only 11 deaths and four of these patients were in a precarious condition when they were admitted to the hospital.

In five of the thirteen hospitals, in which 1,285 maternity cases were cared for, there was not a single maternal death.

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Subsidiary Worker and Her Place, if Any, in Nursing

NETTA FORD, R.N., York, Pennsylvania

FEW subjects have been more persistently presented than this one of the subsidiary worker. In order to bring myself up to date on what had been said and written and what were the actual accomplishments on the problem as a whole, I set myself the task of reading all that our professional publications had to offer.

The more I read the more convinced I became that the subsidiary worker was somewhat like Mark Twain's statement about the weather, "That we do a great deal of talking about the weather but no one does anything about it."

As far back as I had time to go, there is evidence that the subsidiary worker (not however by this rather more recent terminology) appeared as early as 1900, when the 304 members of the Philadelphia Medical Society and College of Physicians lent their names to a project known as the Philadelphia Nurses Supply Association, operating a ten weeks' course.

From then on, there are papers and discussions on every aspect of the subsidiary worker: in the homes; in the hospitals; trained and non-trained; for and against (mostly for); theorizing on their usefulness; practical illustration of methods of adaption; exalting their station; drawing a line of demarcation around their activities; a meagerly educated young person one place; a high school graduate some place else. One enthusiastic writer sees all these young people waiting on the door steps of hospitals and institutions clamoring to get in to do odd jobs—nerve racking, strenuous, long hours, hard work—purely for love of helping suffering humanity, by way of arranging flowers, scrubbing floors, polishing brass (if hospitals still use brass), sometimes carrying drinks of water to patients, making empty beds, and so forth.

I started out with rather a preconceived notion on the subject developed no doubt by twenty years of practical experience—and when I finished reading all these various articles, I confess to two minds on the subject—one, the need and use; the other, the dangers and misuse.

Presented before the Nursing Section, at the Convention of the American Hospital Association, Atlantic City, September 15, 1937

The Author

● Netta Ford, R.N., is Director of Nursing Service of the Visiting Nurse Association, York, Pennsylvania. She is an authority on the use of subsidiary workers in nursing, both in the home and the hospital.

These thirty-seven years have apparently gone in to persuading ourselves subsidiary workers can be useful, and there have emerged in the past two years some definite signs of "doing something about it."

In 1936 the "Manual of the Essentials of Good Hospital Nursing Service" (prepared as you know by the Directors on Nursing of the Council of American Hospital Association and the Committee of the National League of Nursing Education) contains a section on the *subsidiary* worker, recognizing her activities in the total picture.

A resolution of the American Nurses' Association in the convention in June, 1936, endorses this as follows:

"Resolved that the subsidiary worker be used only for such duties in the care of the sick as are outlined in the Manual of Essential of Good Hospital Nursing Service and for similar duties in the home."

A second evidence of the acceptance of the problem is the appearance on the market of a book entitled "Textbook of Attendant Nursing" by Katharine Shephard, superintendent of Household Nursing Association of Boston and Dr. Charles Lawrence. On the cover is this statement, "This book contains the essential facts the student needs to know to carry on her daily work for patients who are not seriously ill, household economic cooking for the family, as well as for the patient, and housekeeping in general. An adequate knowledge of the diseases with which the nurse will have to deal is given."

Then a third evidence of acceptance of this worker was the attempt by the New York State Nurses' Association to control by license the service of the subsidiary worker in a bill introduced

in the 1937 State Legislature. The bill did not meet with success.

We do of course know that several states have included the subsidiary worker under the title of practical nurse," "licensed attendants," and whatnot, which have not and could not be too strictly enforced due to lack of necessary machinery. Such a law has been on the Statute Books of Pennsylvania for twenty and more years and a maximum of only 700 persons have qualified.

Most recently there appears what may prove to be a most important contribution to the existing problems as a whole—a study set up by the State of New Jersey, State Medical Society, State Nursing Association, State Hospital Association, and others, working in joint committee to determine if possible the extent of the nursing needs of the state. When we have these results tabulated, something approximating a true picture may evolve.

Measuring the extent of our problem within the institution and in the community, is the only real intelligent approach to the preparation and kind of nursing care needed.

There is also a Joint Committee of the American Nurses' Association, the National League of Nursing Education and the National Organization for Public Health Nursing which was set up following the 1936 Biennial Convention which may eventually help solve this question through "active, intelligent experimentation."

Reasons Given for Having Subsidiary Workers

As I read through the many pages of articles written about the subsidiary worker, several reasons for their use recurred time and again.

The outstanding one was economic, thinly veiled often by other reasons, boldly stated at times. Another was nursing education. Still another, an attempt to locate this worker in the medical field who is already there and circumscribe her duties. Another the preparation of a worker not now recognized, who will perform duties no longer deemed a part of the more highly technically prepared nurse, such as nursing service for chronically ill or convalescent patients.

The vast uncovered field comes in for its share of discussion, and the shades of 1932-1933 rise up and haunt us with unemployment and overproduction, to be changed in 1937 with eight hour day and cry of shortage of available nursing service. We are a people of great extremes. We do nothing half heartedly. We have an unprecedented prosperity and a depression of tremendous depth all within a span of less than one short decade.

Basically I think the discussion is really economic and the real problem confronting us is "can it be made sound professionally?"

While we have been thirty-seven years sniping at the problem from all angles, will we not now set about with great conviction and perhaps attach undue and unsound importance to it as the solution of many of our nursing ills.

Viewing the Problem From Two Angles

The problem must be viewed from two angles: that of the institution and that of the community. In both the subsidiary worker is now functioning.

The institutions present an ideal situation in which to integrate the worker, a hundred and one non-nursing tasks are performed by workers in a busy ward where the treatment and care of the patient is paramount, and second only in importance, a safe environment for this care.

Two illustrations come to mind and serve to point up these. About ten years ago I met a nurse who had just completed a course in midwifery. She told me one of her first tasks was to learn to build a fire in the ward heater. There seems to me now some relationship between midwifery and building a fire, for today she is practicing in a remote community where building a fire is part of nearly every confinement.

But I am not convinced that it should have been the daily function of a nurse within that institution after it had once been mastered. Nor do I think it made her a better midwife.

The reason I feel the institution is an ideal place is because there we have (or should have) expert ward supervision for everything surrounding the patient, and the detailing of non-nursing functions can safely be done. (I often wonder if we all attach the importance that we should to the ward management and its personnel within an institution. Sometimes working in the ward seems to be merely a stepping stone to something else, and is not considered a paramount position in itself to be developed into the finest service for a particular type of care.)

The second illustration comes from my own experience. The superintendent under whom I trained, graduated from Old Blockly, in 1886 or 1887. I remember in her teaching of practical procedures she described in her experience as a student, a service on night duty in Blockly with ninety-six patients her charges for the night. Her description of the nights were very vivid and this one statement remains. "Of innumerable treatments now delegated to nurses were some not even dreamed of then. They called the night doctor to give hypodermics!"

The Nursing Field Is Broadening Not Narrowing

All of which leads me to the statement that the professional tasks performed by the skillfully prepared nurse have increased over the years. The field is broadening, not narrowing, in importance. On the acuteness of her observations and her skill in administering treatment often rest the results achieved by medical science. This is not an idle statement, for medicine is pushing on and on into fields that must be researched and they delegate more and more to skillful nursing service tasks they no longer need to perform. And looking at it from an economic point of view the nurse can make her greatest contribution in actual nursing care of the patients, not in being wasted in dusting the bedside table. But for the safety and for the best results obtained for the patient, nursing functions should be performed by nurses.

As to the question of whether we now have need of two types of nurses, one with a short course, presumably less well prepared educationally, to work side by side with skillfully prepared nurses. I belong to those who do not see this necessity. In the Public Health field we have worked out a basis for better service in the qualifying of staff members for special fields who in turn guide and direct the service for those not especially prepared, gradually improving the skill of every member of the staff.

The danger I see in accepting the idea of the sub-nurse type of service is that on the surface they merge in identity, not while they are within institutions but when they free lance in the community. Basically the education of all nursing should be the same, specifically the range is as wide as the ills of mankind.

You will all agree that there are all types of service found in hospitals—good, bad, and indifferent. Fundamentally it is economic, but not entirely. It becomes economic because something directly or indirectly relates itself to the service as a whole. And nothing is more fatal than inefficient nursing service and the sub-nurse and subsidiary worker will not change this picture. On the other hand the maintenance of a high level of nursing service in institutions when budget for nursing service declined in direct ratio to unemployment and sickness increase in the receding depression, will redound to the glory of all nursing but not much else.

Witness the transition from schools of nursing staffing hospitals with student nurses for the care of the patient to general staff nursing. That is as it should be, but as long as the student was an economic asset she remained, but when the poor thing cried out for education she became a liability.

Some institutions made this change after careful preparation and study and a sincere conviction that nursing care of their patients was their chief responsibility, and could be best performed by graduate experienced nurses. Others, I fear, have not been so conscientious and it is for the patients in those institutions I bespeak your chief concern in considering the subsidiary nurse, the subsidiary worker, the ward helper, or under whatever title she may function.

The Subsidiary Worker in the Home

My total professional experience has been outside of hospitals. I have been a community worker in that I have been concerned chiefly with the care of the sick in their homes. We have this problem of the subsidiary worker in the homes. Sometimes I think all the people institutions think are not good enough to serve the sick under supervision in hospitals, eventually show up in some one's home, caring for the sick there.

I am just peculiar enough to feel that people need as good nursing care at home as they do in hospitals, and that never will it be possible or necessary to hospitalize all sick persons. Economic and social factors enter into any such program. Such a program would be far too costly both for the patient as well as the community and unnecessarily disrupt family life.

Now the answer to this problem will be, I am sure, the Community Nursing Bureau. It may have any other name, an Official Directory, a Registry for Nursing, but its function will be the function I interpret the Community Nursing Bureau to perform.

Every citizen will have the particular nursing service he needs in his home. If his wife is sick and she needs a definite nursing treatment daily or hourly, a nurse qualified to give that treatment will be sent. If there are three children to prepare for school and no grandmother or aunt or cousin can assist, a household aid will be sent. If this citizen can pay for the service, his obligation is to do so. If not, funds should be made available for the purpose.

The point I want to make is that the Community Nursing Service will have nurses on a salary basis, identical with the hospital nursing staff service, which meets the community nursing needs within the institution, whether they are called ward helpers or household aids; whether they are visiting nurses or ward supervisors; whether they are needed to give special nursing to very ill pa-

tients in the hospital or in the home. Costly perhaps, but not as costly as miscared for illnesses.

Time and again there appeared in these some such statement: "The subsidiary worker can be used in the care of chronic and convalescent patients."

How many of you have had available recent "trends in population" studies. In Dr. James H. S. Bossard's book, "Social Change and Social Problems," much space is given to this problem and an early August issue of the *Saturday Evening Post* has a popular article on the subject. If you have not given this some consideration it is a timely warning.

Nursing the Chronically Ill

If our population trends continue and protective health services for the very young. Ours is going to be a problem of nursing chronically ill persons intelligently. Not so many years ago our attractive literature was prepared on: whooping cough and measles and the baby's first tooth. Now cancer, diabetes, and past forty come in for major emphasis. We have in the past been busy with assisting with removal of tonsils and with the care of rickets and cholera infantum (we scarcely hear that word today), and now with the youngsters pretty well under control we turn to the oldsters.

Let us not be too unwise in preparing a subsidiary group for the important nursing function in the future which will be more than bathing a patient, but will need in addition, able scientific care to assist in the restoration of the patient to the maximum of well being.

Here and there creeps in reference to the rural situation, the wide open spaces where the subsidiary worker may be used. And I take issue again with this point of view; rural areas are entitled to as fine a service for ill persons as big urban centers, and only economics make it impossible to secure, for large centers hold the balance of money power, not only in other things, but for illness as well.

The answer to this seems to be governmental aid.

Two professions that have many similarities are teaching and nursing. A hundred years ago public school systems were gradually emerging. Few of our hospitals have longer than fifty years of growth.

In states where the education of its children assumed prime importance teachers were supported in the remotest areas, and basically today the preparation is the same for urban and rural centers. But in the care of the sick this has not been equally true. We continue to huddle in the larger centers. Let us therefore give thought to these "wide open spaces" and make it possible and necessary for our qualified people to go and not develop a sub group offering only mediocre service.

Conclusion

In summing up: I have offered no new ideas, everything that can be said has been said in many ways before.

Curiously enough, knowing our American trait for hustling things through, even after thirty-seven years deliberation, I caution against too rapid decision. Would that all of us in our several states would take a page out of the New Jersey Book and go home and do likewise, for from every point of view, to make economically and professionally sound, is to study the needs and then work to meet them. Never by any chance super-imposing the plan of Walla Walla, Washington, on New York City.

Our real challenge in the nursing profession and to those who are responsible for the preparation of those who will care for the sick, is to prepare the best people for the service they are expected to render. Let us be quite sure that we are not laboring under false economic pressure.

The Elyria Memorial Hospital

The Elyria, Ohio, Memorial Hospital was built thirty years ago as a result of a serious interurban railway accident in which eight people were killed. Some of the deaths were attributed at the time to the lack of hospital facilities.

One of the victims was a son of a prominent business man of Elyria, Mr. Edgar F. Allen. Mr. Allen determined that the tragic story would not be again experienced and organized the Elyria Memorial Hospital Association, campaigned to raise funds for building the hospital, and gave liberally of his own money for that purpose.

He later retired from business to become the treasurer and director of the hospital. He died late in September and left this fine institution of enduring usefulness and beauty as a memorial to his son who was killed in the accident thirty years ago.

The Purchasing Agent and the Budget

JOHN M. DALLAM, Philadelphia

The Author

● **John M. Dallam is the Purchasing Agent for the Lankenau Hospital, Philadelphia. In his article he makes a close analysis of the relation of the purchasing department's requirements to the hospital budget.**

WHAT CAN the purchasing agent do with the budget? On the answer to this question depends almost entirely whether the budget is a success or not. If the right things are put into it—if it is built correctly—it is a fine instrument to guide the personnel and to make it to the individual interest of each department head to do his utmost in running the hospital well and economically.

Buying in Bulk

The purchasing agent should be as free as possible to buy in bulk whenever best. If cash is limited so that only a certain amount can be spent, then no rule can be laid down as to what items it is preferable to buy and store. Institutions which limit their purchasing agent to buying no more than a month ahead on all commodities or on certain groups, are putting an unfair handicap on him. If a man cannot be trusted to exercise proper judgment in the building up of an inventory, and do it without speculation, he should not be a purchasing agent.

As far as possible, then, budgeting will begin with the disbursement of supplies from a storeroom. They will be sent to the departments as needed, for only in this way can monthly and even weekly consumption be watched and controlled. For this purpose it is absolutely necessary that departments be arranged with one completely responsible head.

Responsibility in Issuing Requisitions

If the responsibility for requisitioning, either from stores or for purchase, is divided, then one head will always blame rising costs on the other. Furthermore, when departments are set up with control entirely centered, the head can be made to feel it is to his own best interest to run departments economically. Many institutions and business houses have found it highly advantageous to give a cash bonus to department heads who run at lower costs than had been anticipated in the budget. Experience has shown that these payments, while they will be comparatively small beside the total payroll, provide an incentive far greater than the outlay would seem to indicate. Of course, it is the old psychology of setting up a goal and a reward; the zest of the effort adds to the desirability of winning. There are two things, however, that must obtain if the bonus plan is to succeed: the goal must not be set so high that it cannot possibly be reached; and the department head must have undivided authority so that he knows he alone is responsible for gains or losses.

However, the hospital which is not prepared to take so radical a step as paying for savings in the budget will find that regular written reports, simple and clear, do a great deal. They are a stimulus in themselves; and when they show decreasing or lowered costs, a reward. The department head has then in writing a proof of his efficiency, and he knows his superiors have it, too!

There are some points at which more than a mere report of expenses for the current period and for the year to date suggest themselves. There are several simple indices which naturally govern operating costs. If you can explain to your dietitian how the cost of meals, adjusted by a reliable index number for food prices, gives a truer picture of operating efficiency, she will find it a valuable adjunct. Similarly, the number of anesthesias with the total cost of anesthesia; and, if you can go so far, degree-hours per month with coal consumption will both give a much better idea of what is really being used.

Budgeting for Repairs and Replacements

A hospital, necessarily keeping step with constant changes in methods of treatment, is probably more prone than any other place to acquire new practices that add to the burden of expense. Many are non-essential and many are not even more convenient. When these begin, if they are unimportant, the purchasing agent who fails to point out how much of the department's appropriation will be used up in this way is missing an excellent opportunity.

Presented before the Purchasing Agents' Session, American Hospital Association Convention, Atlantic City, September 16, 1937.

Of course, all of this means an immense amount of detail. A budget is built on detail, and it must only stop just short of where that detail ceases to pay for itself. The classic question of whether hospitals should consider depreciation has been argued for many years and will probably be argued for many more, but there is no escape from the fact that to run a budget successfully records must be kept which will give an accurate idea of what assets the hospital has and when they will have to be replaced. It is almost uncanny how repair and replacement expenses tend to even themselves up year after year. If a hospital administrator who does not keep a record of these things will go back over his records for some time past, it will usually be quite surprising how closely repairs balance year after year. This, of course, leaves out major disasters, but with a long enough period to consider they too will even up.

This means that with a little care a maintenance budget can be made and followed. In the group of anticipated major items which make up the budget, there will always be some that can be postponed when emergency items must be substituted. Of course, this is predicated on the budget being sufficiently large and flexible. If you anticipate too small an amount, you are either sure to exceed it or else sure to postpone again and again.

Capital Budget

The same principle of exchanging the desirable for the necessary can be applied to new capital items. Those not sufficiently hardened probably feel it is difficult to postpone the purchase of a piece of equipment which will heal the hitherto unhealable or heal better than before. But even if it has to be whispered, we know that some apparatus which seemed revolutionary in therapy yesterday is for some reason gathering dust in corners today!

The alternative to a capital budget is a hit or miss caucus system where the most persuasive of the staff get what they want while a discontented remainder is always put off with a "We can't afford it." How much better if we can tell Dr. Smith he will get what he wants next month, and Dr. Jones that we will buy him his new gadget shortly after the first of the year.

The Budget Is a Tool to Guide and Control

Consideration of administrative questions almost always narrows down to a question of the ability of the administrator. The budget will be worth exactly as much as you put into it and worth as much effort as is exerted in using it. Every Board of Trustees has a tendency to use the rough and ready method of comparing operating costs for one year against another in evaluating their purchasing agent. This makes the budget indispensable to him. He himself may control the buying, but consumption ultimately makes cost, and the budget is the only tool by which he can exert any general control over that consumption. A salesman once remarked to me that he thought any purchasing agent had more difficulty handling his own organization than in handling salesmen. If a purchasing agent has constant trouble with his organization, it is usually a sign he is not a purchasing agent; but if he is going to be more than a yes-man, and still avoid constant friction, he must develop a system for controlling expense. That system will be a good or bad system according to whether it is a good or a bad budget.

Ideal Conditions of Temperature and Atmosphere for Operating Rooms

A group of medical men and engineers are conducting a series of experiments at the Magee Hospital to determine the optimum conditions of temperature and atmosphere in operating rooms for the comfort and welfare of the patients and operating staff.

The medical group is headed by Dr. R. R. Huggins, dean of the College of Medicine, Pittsburgh University, and the engineering group by Mr. F. C. Houghton, research director of the American Society of Heating and Ventilating Engineers.

The research will be extensive in the hope of finding the proper atmospheric conditions of the operating rooms for all types of operations, and the varying conditions of the patients.

It is the consensus of opinion of the group conducting the research that the ordinary type of air-conditioning used in homes and business buildings would not be satisfactory for operating rooms, but that the air-conditioning equipment, calculated to give the desired results in operating rooms must, in addition to controlling temperature, be variable enough to control air motion, humidity, change of air, and the bacteria and dust content of the room.

The result of this research will be studied with interest by both hospitals and members of their medical staff.

Comparison of Various Types of Fuel for Hospital Kitchens

A Symposium

Gas Equipment

BEULAH HUNZICKER and ASA S. BACON, Presbyterian Hospital, Chicago

IN APRIL, 1937, the Presbyterian Hospital of Chicago replaced their gas range and broiler equipment with new style gas ranges and broilers. The old equipment had been in use for twenty-five years and could still have given some years of service.

The change in equipment was made for the following reasons:

1 To effect a saving in gas consumption
2 To improve the finished product
3 To reduce the temperature of the kitchen

The ranges and broilers installed are heavy duty hotel units. The bodies are constructed of heavy gauge steel, finished in baked ebonite. The ovens are finished in enameled sheet steel, are insulated with compressed rock wool and are equipped with thermostatic control. The cooking tops are the all hot top style. The burners of the cooking tops do not have thermostatic control. A one-piece fry top is installed in one of the range sections. The broilers are heated by ceramic radiants.

Cost of equipment—Averaged $250.00 per section.

Probable years of service—Ten years, depending on care and usage given equipment.

Cost of repairs and replacements—Approximately 1 per cent for the first three years and 2 per cent per year for the next seven years.

Fuel Cost for Daily Use

Since our gas ranges do not have separate meters, it is difficult to determine the daily cost of fuel.

Quoting the figures of the equipment company for the gas consumption of our equipment:

"For cafeterias and institutions, the general average gas consumption is 3½ cu. ft. 530 B.T.U. gas per meal per person. For service restaurants, clubs or hotels, the figure doubles or trebles."

Presented before the Dietetic Section, American Hospital Association Convention, Atlantic City, September 14, 1937.

The Author

● **Asa S. Bacon is Superintendent of the Presbyterian Hospital, Chicago. He has been greatly interested in hospital food service, and is originator of the central food service plan for hospitals. Beulah Hunzicker is the Chief Dietitian at the Presbyterian Hospital.**

Our figures show that the cost of gas for the period of May 17-August 18, 1937, was 19 per cent lower than that for the same period in 1936. In 1937, during this same period, there was an increase of 13 per cent in the number of meals served.

Our gas rate in Chicago is 13.3 cents per therm for amounts over 60 therms used.

Because of the compactness of the new range sections, it was possible to install two extra range sections in our space, giving us more cooking and oven space. This facilitates the preparing of menus; it also increases the gas consumption.

Efficiency Comparing with Previous Equipment

Approximate time of heating for present equipment:

Solid range top	—15 minutes
Broilers	—10 minutes
Ovens	— 8 minutes

In the case of broilers, this is less time than was required to pre-heat old equipment. The time for range top and ovens is approximately the same. The new type of burners mean a faster heating of the unit but because of the insulation this difference in the action of the new burner is not so apparent. In all cases, because of the insulation, the new units cool more slowly than the old units.

The finished product in all cases is as good with the new equipment as with the old, and in some instances it is decidedly better. The greatest difference is seen in the meat cookery. The broiled meats are cooked more quickly, more uniformly, and have a richer color.

In the case of roasted meats, the product is more uniformly cooked throughout, with of course less tendency for the outside of the roast to be overdone. There is actually less meat shrinkage when the new insulated and temperature controlled ovens are used. Other products as well as the meat are more uniform from day to day.

We feel that for general kitchen work and for the service of a comparatively large number of short orders, these ranges are well suited to our needs.

Advantages and Disadvantages

Although no figures are available, the kitchen temperature has been reduced considerably due to the change in stove equipment. The greatest change in temperature is directly in front of the ovens and cooking surface. With the old equipment it was very uncomfortable to stand in front of the stove on hot days due to the radiation of heat from the ovens. The insulated ovens have done away with this difficulty.

The stoves produce no waste. The range and broilers are built with stream line design, with all bolt heads concealed and with cracks and crevices eliminated. The stoves are easy to keep clean.

This equipment has proved very satisfactory. It will pay for itself, at the same time giving a better product and more comfortable kitchen.

Electrical Equipment for Cooking Purposes

LUTE M. TROUTT, Indianapolis, Indiana

AN EMINENT surgeon once made the statement, "Forethought can prevent most of the poor results and tragedies of surgery." In a like manner we should ponder in advance the probable benefits to be derived, as well as fully consider the deficiencies which accrue, in methods of food preparation. In the presentation of the use of electricity for cooking purposes, we will keep in mind as major topics equipment cost, operating cost, and efficiency.

The Author

● Lute Troutt is the Director of Dietetics, Indiana University Medical Center, Indianapolis, and Chief of the Department of Nutrition.

Cost of Equipment

The cost of equipment is at the present, one of the shortcomings of electrical cookery. There is every justification for this. In the first place electrical cookery is not as old as the other methods. Experimental costs for development of the units must be borne by the consumer who has had the advantage of the many benefits which are to be derived. In a similar way we might point to the advent of the radio, the automobile. In the past few years the cost problem has become more and more insignificant as the volume of sales for electric stoves has increased, and prices have correspondingly decreased. Two years ago we purchased complete electrical equipment for our main kitchen at a premium of 25 per cent over gas. Cost of equipment, however, must be considered from two different points of view: the first has to do with initial cost and is the type of cost previously referred to; the other point of view has to do with cost per year—in other words, the total cost of initial installation divided by the probable years of service. A third factor having a bearing on cost is that of repairs.

Cost of Repairs and Maintenance

Fourteen years ago the institution with which I am associated purchased two three-unit bake ovens at a price then considered enormously high, that is to say $4,000 for the two. These units had a capacity of 240 pounds of bread per run. In fourteen years our cost of repairs and maintenance has been exceptionally low, the total has been less than $100. This $100 represents slightly more than $7 per year.

Cash outlay for repairs is one thing. Inconvenience to the department, loss of baker's time, cost of outside substitute purchases and the like are another. Where the cash outlay is at such a low figure as that given previously we feel that the other factors are of more importance. If the cash outlay were, let us say $14 per year, the difference to the department would not be the difference between $14 and $7 but rather $7 plus a double amount of grief.

Inversely where the cost of repairs is held at a minimum, the other costs which follow in the

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path of shutdowns for repairs are likewise held to a minimum.

Our records indicate that cost of repairs for electrical equipment is substantially lower than that for the gas equipment which we formerly used. However we have discounted our savings to some extent due to the fact that we have the history for the complete life of gas equipment which was eleven years old at the time of replacement, while our electrical equipment is only two years old and for that reason should not be incurring any sizeable expense for repairs in its early years. However in comparing cost of repairs for the bake ovens in the bakery with the gas equipment used in the main kitchen we find that gas equipment repair cost is materially higher.

Cost for Daily Use

Cost for daily use is a problem which must be worked out in each locality in accordance with existing rates for gas, electricity, or coal.

In a natural gas region where the assurance of continuous supply is adequately provided for, it would be folly to attempt to justify the use of electricity on a "cost for daily use" basis. Frequent attempts at comparison of costs are based on the relation of B.T.U.'s produced by the two types of heat. Engineers have long ago turned from this theory in attempting to evaluate coal on such a basis and have turned to the theory of pounds of water evaporated per pound of coal as the index of the results they are obtaining. This has delivered them in part from never ending discussion of the relative content of ash, carbon, moisture, low melting point of ash, draft regulation, black smoke, and the thousand and one elements which enter into getting the most out of the coal dollar.

In the same manner there are volumes written on the relative B.T.U. output of one kilowatt of electricity versus one cubic foot of gas—the insulating powers of the ovens—the open burner versus the closed burner, and other contributory factors toward the cost of operation. In the last analysis the cost for daily use boils down to a consideration of which is the cheaper and whether it is because of, or in spite of better insulation, lower burners, open or closed burners, and the many other considerations.

Our experience has been that the use of electricity for cooking has reduced the fuel cost to approximately 25 per cent of its former cost. The rates, if you care to work out the problem, were .60 per 1,000 for gas and .008 per kilowatt for electricity. Our present rate per kw. has been computed as .01 so that our present cost is approximately .31 per cent of the former gas cost.

Conditions vary materially depending on the size of the institution, whether the electrical current is produced in the institution's own power plant, and if so whether the electricity can be produced at a satisfactory rate through the use of exhaust steam and such economies. Ordinarily in the central and northern states of the union it is necessary to have heat steam for temperature control during the majority of the months of the year. When it is necessary to have steam for this purpose and the power plant is properly designed the cost of electricity during the winter months is very low. Where the steam is produced primarily for electricity production the cost is higher.

Efficiency

Efficiency—what is efficiency? Two years ago we were plagued with the theory of technocracy. Attempts were made to tell us the constituent parts of what constituted efficiency. At least that portion of the lectures which I was able to understand ran along these lines. Webster refers to it as the ratio of energy of work got out of a thing, as compared to the energy put in.

An accounting friend of mine refers to it in three words, "most satisfactory results."

Length of time required for heating is one of the discountable disadvantages of electrical equipment. If you need immediate heat it is a disadvantage. If a program of personnel control is worked out whereby one of the employees can flip a switch 15 minutes earlier than would be required to turn on a burner the element of disadvantage passes into oblivion. Surely this is not a difficult task to work into the employee's schedule of duties.

Length of time required for cooling while probably looked upon in the first instance as a disadvantage actually works as an advantage when proper use is made of stored heat in finishing the cooking job.

Length of time required for cooking with electricity averages the same as the time required in using any other type of heat. Electricity does not require less time, but it certainly does not require more.

The necessity for flat bottom pans is a complaint against electrical cookery which is almost humorous. We do not decry the need of gasoline

for automobiles, tubes for radios, or hay for horses, but for some reason or other when the necessity for flat bottom pans is presented in connection with the most efficient service from electric stoves it is pointed to by objectionists as an obstacle looming as high as the mountains. Sight is lost of the fact that when these pans are purchased the need for future purchases is infinitely more removed than if the pans are subjected to heat by any other methods. In other words, they last longer.

The quality of the finished product cannot be attributed to the cooking equipment alone. In my experience as a dietitian I have seen good cooks and bad cooks, good equipment and bad equipment. Therefore when I reach the topic of quality of finished product, I am of the opinion that the presence of heat for cooking is one thing, and the presence of a person who knows the right amount of salt and pepper to add to the boiling pot, the way of preparing vegetables and meats for cooking, the time to put them on and take them off is a vastly more important thing.

It is evident from the foregoing that we have experienced no difficulty in adapting electrical equipment to general kitchen cooking. With reference to short order work, we have experienced very little demand for this service before breakfast, and after that time the stoves are warm and can be very readily stepped-up to meet the requirements for short order work.

General Advantages or Disadvantages

The balance of this paper deals with general advantages or disadvantages as they have to do with the temperature of the kitchen, cleanliness, ease of cleaning, and the like; bearing in mind that we are speaking of the use of electrical cooking equipment in the hospital and not in the home.

Temperature — Unless the radiation from the cooking units is used to provide a part of the heat for the kitchen and adjustment made in steam radiation to compensate for the presence of this additional heat, the working conditions within the kitchen will not be as conducive to good results as could be obtained. In other words, it is perfectly sensible and logical to use stove radiation during such seasons of the year where additional heat is needed from the central heating plant. However, the question arises what should be done, or rather what can be done about this excess heat during the months when all of the windows are open, and the problem of providing workable temperatures in the kitchen still remains a serious one. Our experience has been that better ventilation has been possible, drafts have been a minor problem, and heat radiation from the cooking units has been decidedly less since the installation of electrical equipment.

Cleanliness—From the standpoint of cleanliness it has been our experience that the complaints lodged against electrical stoves in that the element catches spill-overs, resulting in short circuits, or unpleasant odors until the spill-over is charred and lifted, are greatly exaggerated. As compared with this we are relieved of the necessity of having the maintenance men ream out the holes in the gas burners which was necessary about every three months. Electrical stoves are readily cleaned with much less effort on the part of the employees and in a much shorter time.

Controlling the heat — A complaint has been lodged against electric stoves due to the fact that the heat of the stove is not as adjustable with its high, medium, and low as is the flame of the gas stove. It has been our experience that through a certain amount of adjustment in preparation procedure this handicap may be overcome to a substantial degree. At least we have had no greater difficulty in overcoming this disadvantage than in our former experience with fluctuations in the pressure of gas. Further, for oven heating, electricity has the advantage of a heating unit both above and below the hearth thereby giving a very satisfactory distribution of heat.

Advantages or disadvantages may or may not apply to a local situation—In large institutions the power is furnished by the hospital's own power plant in the majority of cases, thereby allowing a use for exhaust steam. If adequate floor space is a problem, the electrical units are advantageous since they can be placed next to the wall, and being cooler, require less working space in front of the stove. Also, there is no flame, from which we may deduct that there is less danger of ignition, smoke, or fumes and no air consumption.

A final question in the advisability of the use of electricity for cooking has to do with frequency of interruption of service as compared with gas. This will, of course, vary in different communities. However we do rely upon electricity for general lighting, offices, laundries, air conditioning, elevator service, sterilizing, and operating rooms. It would seem that the demands for electricity for kitchens would be no more exacting in nature than for these other services operating within the hospital for the benefit of the patient.

The Swedish Type Stove

RUTH WILDMAN, Williamsburg, Virginia

ALTHOUGH it has been in use in Europe since 1927, the Swedish type stove only recently has been introduced on the American market for commercial and domestic use.

The principle of this type stove is to maintain a steady, slow, and complete combustion of coal. This is done by a thermostatically controlled damper which regulates the air intake of the combustion chamber. The heat released is stored in a large mass of iron insulation, capable of holding enough heat to keep the stove operating continuously. The stove has heavily insulated lids, which cover the top cooking surface when it is not in use and store up energy to have available for use when needed. This special insulation prevents the escape of heat into the kitchen, which makes the working conditions for the cooks much better than the ordinary coal burning stove. It also prevents the gases, which are the product of combustion, from entering the room. The combustion gases are carried through tightly sealed pipes up the flue to the chimney; with these gases go all the cooking odors from the ovens. This stove not only results in a great saving of fuel, but also a further reduction in the expense of installing equipment to carry off excessive heat and unhealthy gases.

The entire dimensions of the commercial Swedish range are 57¼ inches long, 30 inches wide and 33½ inches high from the bottom of the floor plate to the top surface of the stove. There are two ovens, one above the other—the upper oven being very hot and the lower one used for slow cooking and providing a space where cooking may be done overnight or where the slow transference of heat is desired.

The Stove, Not the Cook, Determines the Quantity of Fuel

The stove itself, and not the cook, determines the quantity of fuel used. It is designed so that the top cooking surface, the high heat oven, and the low heat oven are maintained at a specific temperature—about 450 to 500 degrees top surface, 400 to 450 degrees hot oven and 200 to 300 degrees low temperature oven. Two fire boxes furnish direct heat to the right and left sides of the top, the center of the top provides a cooking surface at slightly lower heat. The flue gases then pass around the high temperature oven and finally around the low temperature oven. So little heat is radiated that the kitchen is always delightfully cool. If some heat is wanted to warm the kitchen in cold weather, the lifting of one of the insulating lids will tend to warm the air in the room, without in any way depriving it of oxygen.

Presented before the Dietetic Section American Hospital Association Convention, Atlantic City, September 14, 1937.

The Author

● Ruth Wildman writes of her experience with the Swedish Stove while Dietitian of Travis House, Williamsburg, Virginia. Miss Wildman is now dietitian of the Potawatomi Inn, Angola, Indiana.

Servicing the Stove

Servicing of this stove is very simple. About ten minutes is required daily—a special receptacle for introducing fuel in the stove is furnished with each range. No coal can be spilled in the refueling process. The fire should never be permitted to go out, since twenty-four hours are required to heat the stove to its proper temperature.

Cooking Utensils

In addition to the special receptacle for fueling, every stove is equipped with special cooking utensils. To get the heat from the stove into the food, the principle of conduction is stressed so that the cooking utensils must fit with absolute contact. For this reason there is provided a representative selection of utensils as standard equipment. These pots, pans, skillets, and other utensils are ground on the bottom, and designed to fit the ground surface of the top heat units. Because broiling is not possible in this type stove, a griller is provided to accomplish a similar function. This is done by frying in a covered pen with a corrugated bottom.

The effect of tight contact in speed of heating is very striking. An ordinary domestic coffee percolator started to function in seventeen seconds from a cold start. When a small projection was placed under the utensil, so that it was lifted one sixty-fourth of an inch off the bottom of the stove, cooking was stopped for several minutes until

radiation picked up the load, but even this was not very effective, owing to the low surface temperature.

Comparisons in Cost and Service

Each unit of the commercial type has a cooking capacity for seventy-five people. It has an advantage over any other type stove in that it is always ready for instant use; the ovens are always up to temperature and the cooking surfaces *hot*. Since there is no open flame, there is no blackening or sooting of pans and kettles and all utensils stay bright and clean.

The initial factory price of these units is $650, to which must be added the cost of transportation; the cost of setting it up, which requires two men nearly a day; and the cost of a minimum set of utensils so, that the approximate cost set up and ready for use would be $725. In a year's time the stove consumes approximately six tons of chestnut anthracite, which in this section costs nine dollars a ton. The average daily requirement is thirty pounds of coal or a cost of 13½ cents daily for fuel.

The upkeep of the Swedish type range should, under normal conditions, be very low. It is so constructed that the only replacement necessary will probably be the grates. These grates, under normal use however, should last indefinitely.

In comparison with the Swedish type stove, a gas stove of medium duty, capable of preparing the same amount of food and having an initial cost of $295, consumed, over a period of six months, an average of fifty dollars worth of artificial gas per month—the cost of the fuel per day being $1.64. The depreciation on such a stove is ten per cent a year and the average life, depending on the care, is 15 to 20 years.

Nursing Is a Sacred Trust

"Those of us who like to think of a nursing career as a profession noble in aspiration, unselfish in aim, social in pursuit, and full of opportunities for making life beautiful are becoming disillusioned by the seeming changes in this concept manifested daily by acts which can be the result only of outside interests that undermine, for selfish motives, the nobility of purpose which has always been associated with nursing and debase the wondrous examples which have preceded you by the acts of your illustrious predecessors. I should like to caution you to give no heed to irrelevant persuasions by persons not in your profession or of questionable motives, to regard your trust as sacred and regard it with true humility.

"Today, emphasis is placed on woman's executive ability as if it were something new. Many years ago Emerson said 'Men are what their mothers make them,' and Lincoln with filial piety said 'All that I am I owe to my mother,' and even the ironical Cato, the bitter critic, said 'We are governed by people but women govern us and our wives rule our actions.'

"A few years ago the launching of a class of nurses newly graduated was of grave concern to hospital officials. Well trained and educated young women were turned out into an unhappy world which did not seem to want them and which could not adequately support them. In spite of this feeling many far seeing school officials continued courageously through that trying period and kept nursing schools open. Today, the short-sightedness of those who closed their schools is painfully demonstrated by the lack of personnel to permit redistribution of nursing service more in keeping with present day standards.

"In the maze of education in science and chemistry, between teas and musicales, you may have forgotten your fundamental duties to the patient and the doctor. To help you remember I should like to leave with you what a well known nursing educator, whom I met recently, summed up in three sentences: "Carry out the orders of the doctor. Give an accurate account of the patient's condition during the doctor's absence. Make the patient as comfortable as possible.' Nursing would be simple indeed if that were all, but in addition to these fundamental duties you will be called upon to face many difficult tasks. Be cheerful. If you can smile until ten o'clock in the morning, the rest of the day will take care of itself. Lead cheerful lives. Don't look for trouble because trouble is like a baby, the more it is nursed, the bigger it will grow."

Stephen Manheimer, M.D., Executive Director of the Jewish Hospital, Brooklyn, New York, in an address before the nurses' graduating class of 1937.

Factors to Be Considered in Putting the New Curriculum Into Effect

ANNA D. WOLF, New York City

EAGERNESS, anxiety, and even fear have been shown in paradoxical anticipation of the advent of the "Curriculum Guide for Schools of Nursing." Before its publication opinions pro and con were expressed as to its probable usefulness and also to what some have termed its extreme and radical proposals. The book itself gives ample testimony to the serious, earnest, and intent study which has gone into its making; the conservative approach to its progressive suggestions is well expressed by the Chairman, Isabel Stewart, in its introduction. Quote "Many people who have used the League curriculum in past years will soon discover there is no change in its fundamental purposes. The curriculum has always been intended as a guide to nursing schools in building their own curricula, not as a standard to be enforced nor as a pattern to be slavishly copied. The purpose has been to encourage schools to look and plan ahead in their educational programs, to experiment with new materials and methods rather than to follow too closely the traditional curriculum, not to be satisfied with mediocrity *but to aim at the best they can achieve,* working toward that aim in a sane and reasonable fashion."

Now that the curriculum guide is in our hands what shall we do with it? Is it a volume for the book shelf or a volume for hard usage? Are there challenging elements in it which may be stimulating to our work? Have we made plans to use this book for its intended purposes or have we, during the period of its formation, felt little interest or sympathy with the project even much less with its suggestions?

Some of us may have already determined that we have no desire to be influenced by its contents; we may be self-satisfied with our work; we may live by the philosophy "let well enough alone" and ask "why put a monkey wrench in the machinery of our hospital and school" and add "there are enough troubles." If this is our attitude the topic before us will be of little interest or merit, the new curriculum guide will have no place on our desk or even on our book shelves to collect dust!

Presented before the Nursing Section at the Convention of the American Hospital Association, Atlantic City, September 15, 1937.

The Author

● **Anna D. Wolf is Director of School of Nursing and Director of Nursing Service, New York Hospital School of Nursing, New York City. Miss Wolf is one of the leading nurse educators in the United States.**

Others of us have given purposeful thought to its use and although we may have been somewhat overwhelmed at the responsibility placed upon us we are willing and anxious to approach our obligation with sincerity and honest effort.

The practical aspects of the administration of the curriculum were of particular concern to the Central Curriculum Committee and as is already known a special committee was appointed to study such phases in its installation. Some of you present may have participated in group studies on this subject and are quite familiar with the activities of this committee. Miss Goostray's paper "Plan for the Installation and Operation of the Curriculum" read before the National League of Nursing Education convention in June 1936 and published in that report strikes a keynote in her words "in the installation and operation of the curriculum we shall be concerned with two factors, first the adoption of standards which will make possible the operation of the curriculum and second the installation of the curriculum itself" and she ends her discussion on the optimistic note "but if the principles (of nursing education as indicated in the new curriculum) are sound we shall see just as much progress in the next ten years as we have in the last and no one can doubt but that there has been very real progress towards a sounder system of nursing education."

"Some Practical Aspects of the Curriculum for a School of Nursing" was presented at the last American Hospital Association meeting in Cleveland by Effie J. Taylor whose timely consideration of this important topic based upon years of successful nursing educational and administrative experiences was replete with invaluable suggestions.

At the recent meeting of the National League of Nursing Education in Boston a most excellent program centered on the subject "Adapting the

Proposed Curriculum to Schools of Nursing" at which time the directors of four schools of nursing gave practical suggestions for its use. Each of these aforementioned articles together with the section dealing with "the Administration of the Curriculum" in Part I of the Curriculum Guide we commend to you for thoughtful reading as in each are elements very worthy of consideration and in many instances probably satisfactory application.

Our subject this afternoon therefore is not a new one and what is offered may seem repetitive of these previous papers. Four major factors, which are interdependent and each one of which is composed of many elements, will be taken into account as psychologically and logically important in this discussion of "The Factors to Be Considered in Putting the New Curriculum into Effect."

First is that of psychological attitude, open mindedness and the desire to progress, based upon sound knowledge; the second is the formulation of concrete plans for improved change; the third, the security and guarantee of adequate financial resources and of teaching facilities; the fourth, the application of adopted plans.

The Curriculum Guide Is Suggestive—Not Mandatory

Knowledge of what the Curriculum Guide offers is a first step in any consideration of its use. This should be shared by all who are responsible for the conduction of the school and for the actual teaching of students. The faculty of a school of nursing, under the guidance of the director of the school, has as one of its chief functions the study of its curriculum and should constantly be performing this in light of past experiences and present opportunities. In a well organized faculty there should be frequent discussions of the content of the curriculum and its administration. Any nursing school curriculum deserves reorganization and revamping constantly. The new Curriculum Guide for many of us offers in concrete and quite detailed form innumerable suggestions with which we must be familiar if we make any attempt to consider this much-discussed curriculum or wish to incorporate elements of its content into our own. As we read and study this guide we should bear in mind its chief purpose as its title indicates.

It is suggestive only—not mandatory. It offers fresh and stimulative counsel which is believed to be in line with progressive educational change in nursing based upon the demands made upon our profession today. It is not required or imposed upon any of us. From it we may learn new methods of approach, suggested new content which will enrich the student's course of study, a challenging viewpoint for some even in regard to the fundamental conception of the nursing school as an educational institution. I am convinced the new Curriculum Guide offers each one of us individually and our faculties collectively what we want to get from it. Our own preconceived notions and ideas and limited knowledge are reflected in our reactions to it. If we can approach our study of it with an open minded attitude which emanates from the desire to progress and to experiment in a thrilling educational venture, one milestone is passed. The next step is to be able to convince others—perhaps faculty members, physicians, the hospital superintendent and members of the nursing committee or board of directors—that changes are necessary in a curriculum offering the best preparation in nursing. To do this one must be armed with *facts;* must be able to present the fact convincingly; must be sympathetic with problems of hospital administration. If one is convinced of needed change and can secure interest from those who are responsible for the school a long road has been traveled, hope has been renewed, courage is strengthened. A vital living factor is this desire for progressive activity and unless it is a dominant element in the morale of the group, growth is thwarted, activity is limited, progress is hampered.

A detailed and comparative study of the Curriculum Guide can be well accomplished through individual participation in groups of common interest and result in definite recommendations based upon concrete suggestions for change. Building upon the principle that each school has the right of individuality based upon its own professed aim and most probably upon the actual conditions within the school, suggested recommendations are necessarily different to some degree for each school. It would seem a good plan to work out in detail what a given school would have to do to incorporate the suggestions of the Curriculum Guide just to see where it stands in relation to such an optimum curriculum which is proposed for guidance—a lode star for many. This may be a discouraging comparison or happily not so great a contrast as expected. When such a thorough study is completed many different problems and ramifications present themselves. Without such an analysis of the Curriculum Guide however one cannot arrive at any fair conclusions as to its justification or as to its application in a given school. After such an investigation is made the next step would seem to be to determine concretely what changes would seem best to effect and what such changes would in-

volve. This step would bring us logically to the consideration of facilities, intramural and extramural, available to carry out proposed changes which in turn would cause us to give consideration to the financial implications.

Adapting the New Curriculum to Individual Situations

In some instances facilities may be adequate with minor adjustments, on the other hand they may seem beyond our reach. For example the new curriculum suggests a three or four months' required course in psychiatric nursing. The facilities may not be readily accessible to a school or if accessible will reduce student personnel during the senior year—the most valuable time to the hospital. Obviously this situation in any case may cause serious administrative difficulties—to arrange for affiliation at some distant point and to pay for additional service in the hospital.

Considerable emphasis has been placed upon the need of a well organized and equipped library which we know is often found limited in schools of nursing. Again an outlay of funds may be necessary, if the school has not an active library; additional personnel may be required to administer it; an annual budget necessary to keep up its accessions. Of the particular suggestions made by the Central Curriculum Committee the following, undoubtedly highly desirable, may require considerable outlay of funds to carry out: the shorter week of forty-four or forty-eight hours to include class, the longer preclinical period to enlarge the biological and social science content and provide a more reasonable schedule for the student, the inclusion of practice in clinical subjects usually offered as electives, viz. communicable disease, psychiatry, and community nursing. Not any one of us probably would consider these unreasonable suggestions for the improvement of our school and consequent better preparation of the nurse for community services. In some instances they are already established but in others they seem almost unattainable.

The proposed higher qualifications of candidates to the school presents serious difficulty to many schools although undoubtedly some few schools could readily make such a change. To secure better qualified faculty, as would be required to carry out such a program, may present certain problems at the present time although we agree this is a necessary attainment. Many institutions are especially concerned lest the higher qualifications limit the output which today in many centers seems inadequate to carry the load of graduate service required and must be supplemented by services of subsidiary workers. Poor service to patients may result. All of these and many other administrative problems present themselves as we consider effecting changes proposed by the Curriculum Guide. They must be recognized and faced. Need they cause such fear that we do nothing to remedy poor educational methods as well as service opportunities?

It is the obligation of each one concerned to determine what is the best plan for a given situation. The director of the school and the faculty should know what ought to be done and be able to point out reasons for change, to stimulate interest in and convince others responsible for the school that ways and means should be found to improve the school gradually. Hence first steps for change should be agreed upon and progress anticipated if the school is to retain a position which will recommend itself to the prospective student and to the community.

We Should Look to the Public for Support of Nursing Education

Funds are generally available where opinion is unanimous for their needs. As hospitals have assumed the dual responsibility (among others) of caring for patients and educating nurses they must sense their responsibility of securing funds to promote both interests if they accept the educational aim as suggested in the Curriculum Guide. This can be done only through their ability to secure community interest in both projects either through individual or public support. Nursing education as other forms of professsional education requires adequate budgetary allowances. One means of helping to meet the obvious additional costs is to require students to pay more for the education received than is required in other institutions; scholarships and loan funds should be established to assist students in meeting these financial obligations. We should look to the public for support of nursing education. Other countries have found the public a possible source of support. We have as an example the excellent system of nursing education in the small country of Finland where standards of nursing education of the highest order are found. The public will not respond unless it is cognizant of its responsibility. It requires therefore wholehearted conviction and effort on the part of those responsible for schools to make this need felt.

Raising of Standards Has Not Reduced Number of Students

Educators are generally agreed that the raising of standards has not reduced the number of students. Improved educational programs and facilities in nursing are required if higher educational

qualifications are to be established and in my humble opinion the successful results of these are largely determined by and dependent upon better conditions for the services of graduates. Because it is difficult to secure graduate nurses for many openings today does not seem the reason to lower standards or keep them as they are. If we wish to stimulate greater interest in nursing which today requires as high or higher intelligence and preparation as ever before we must ameliorate conditions.

Many schools in the country undoubtedly are not ready and should not try to carry out the program suggested in the Curriculum Guide except in a very limited way. There would be evident dangers in such a scheme. Gradual experiment and change are advantageous for most schools although in a few complete reorganization may be undertaken if adequate funds and facilities are available. As is suggested by Miss Sally Johnson in her discussion of the adaptation of the principles of the Curriculum Guide at the Massachusetts General Hospital School of Nursing, "make right those features that are now almost right in order that we may have a sense of accomplishment and at the same time begin to hammer hard at the features which are least satisfactory." Undoubtedly encouragement is needed and a sense of satisfaction that something has been done—small as it may be—which has improved the situation gives us renewed courage. Therefore having determined what particular changes are desirable for a given school and which ones are adaptable and possible under existing circumstances, a systematic procedure for putting them into effect should be followed. This may be started by enlarging the content of courses or revising course sequences and units or incorporating suggested methods of instruction or planning additional study for faculty members none of which would mean a particular outlay of funds. If funds were available suggest those changes which seem best for your school—if sufficient perhaps reducing student hours or lengthening the pre-clinical period if service may be obtained to offset the loss of students' time in the care of patients. Very deliberate and painstaking plans for immediate and future changes should be developed and followed as opportunities to put them into effect are presented.

Progress can only be made however through the cooperative effort of each one responsible in order that through the better preparation of nurses patients may have better service.

The New Montgomery Hospital

A completely new and much enlarged Montgomery Hospital has been assured residents of Norristown, Pennsylvania and vicinity through the oversubscription of a $525,000 building fund sought in a public campaign in October. A total of $557,292 was subscribed as elated campaign workers made final reports at a "Victory Dinner" in the borough hall of the oldest chartered borough in the United States.

The new hospital will have 130 patient beds, and in diagnostic and therapeutic equipment will be complete and modern in every respect.

Montgomery Hospital opened its doors as "The Charity Hospital of Montgomery County" on January 1, 1891. Its principal building at that time was a school house, formerly used for the instruction of colored children, which had been remodeled for hospital use. This same building, with somewhat more modern adjuncts, is still serving the hospital needs of approximately 60,000 people in Norristown and surrounding boroughs and townships.

The Hospital Is the Focal Point of Medical Practice

"Today the hospital is indispensable in the practice of medicine, even in many instances where the patient remains at home. It has become the focal point of medical practice, the fountainhead of new discovery and invention and the source of most recent knowledge about improved technique garnered from all over the world.

"The doctor who comes to your home and treats you there," Dr. Frank A. Walsh continued, "may actually be aided in his diagnosis or treatment by something reported at the last meeting of the hospital of which he is a member. All of our youngest doctors, furthermore, receive postgraduate training as interns in our hospitals, under the guidance and direction of older men on the attending staff.

"Indeed, it may be said that not only has the hospital of the twentieth century witnessed the evolution of modern medical practice, but it has contributed to that evolution in a most substantial and vital way."

Frank A. Walsh, M.D.,

The Place of the Dietitian in the Out-Patient Department

GLADYS HILLS, New York City

WE LIVE in an age of specialization. The out-patient department has specialists for the treatment of patients with medicine, surgery, psychiatry, occupational therapy, radiotherapy, physiotherapy, and social service. If we accept dietherapy as another type of treatment, then why not have an expert to teach patients special diets? A dietitian knows food. A clinic dietitian knows not only food and its relation to health and disease, but how to teach the patient about the use of food in his own particular condition and to consider his racial, economic, and social environment, and to limit the instruction to his mental capacity.

The doctor knows food as such (objectively)—though little about the culinary art—and dietherapy to some extent. He has not specialized in this subject, therefore, why should he be expected to care for that part of the patient's treatment. The dietitian in the hospital manages this problem for him, and in fact, she has been doing so for a long time. No Grade A hospital in the United States is without a dietary department, but how many clinics try to get along without a dietitian?

Problems in Forming New Food Habits

In prescribing a diet in the hospital the doctor is assured that it will be given under the expert guidance of a dietitian. Why should not the doctor in the clinic have a similar service? In the ambulatory department we have the same patients with the same diseases needing the same dietherapy as in the hospital bed, but with the added problem of having to manage their own diets. These ambulatory patients have no dietitian at home to plan and supervise their meals and no hospital diet kitchen to provide the food. They must think about food as perhaps they never have before.

It is not easy to set up new food habits. Neither is it easy to stretch the food budget to include a high-vitamin, high-caloric diet, nor to buy an ulcer regime in a restaurant. Perhaps the family does not coöperate, perhaps friends do not understand and are hurt when the diabetic refuses certain foods. The employer thinks it is only a silly notion when a man with a gastric ulcer says he must drink milk in the middle of the morning.

Presented before the Out-Patient Section American Hospital Association Convention, Atlantic City, September 14, 1937.

The Author

● Gladys Hills is Dietitian of the Vanderbilt Clinic, New York City. Her work in establishing proper nutritional service for ambulatory patients is well recognized.

The Dietitian Helps the Patient Plan His Meals

Time does not permit the busy physician to give patients the detailed instructions they need. A doctor's instruction often consists of a series of "don'ts" followed by brief, standardized instruction or perhaps the patient is given a printed diet slip. How well, then, does the patient fare if the diet teaching is not left to the doctor? What kind of instruction would he receive from a clinic dietitian?

First the dietitian reads carefully the medical and social history and gathers the main facts including the doctor's recommendations, upon which to base her instruction. She finds out the patient's nationality and this carries with it a set of specific food habits. She finds out his economic status, whether he is working and earning a living wage or is supported by some charity; she finds out his occupation, and something about his social and home environment and his family relationships. From the patient, in a leisurely interview, in comfortable, pleasant surroundings, she finds out where and when he works; where, what, and how he eats; who cooks for him; and what cooking facilities the family has. In a spirit of sympathy and mutual interest while the dietitian and patient talk over his food and health habits, she estimates his mental capacity and learns whether he can read English. She may discover that the man works nights one week and days the next, running an elevator; that he eats dinner in a restaurant, carries a lunch, and prepares his own breakfast over a one-burner stove in a furnished room. The dietitian will then plan with him a set of meals according to the physician's prescription for a low-residue diet without milk, but arranged

especially for him. She explains simply the underlying principles of the treatment, so that he can follow the instructions intelligently rather than blindly. She illustrates her explanation with pictures, food or food models if necessary, to help him visualize his diet.

One patient was handed a printed diet list for gastric ulcer as he left the doctor in the clinic and was admonished "to keep your diet." He was ashamed to tell the doctor he could not read and did not want to bother anyone to read it to him, so kept on eating highly seasoned, rough food twice a day. He grew worse, became discouraged and decided to try another clinic. Luckily he went to a clinic where there was a dietitian to teach him.

The dietitian stands between the doctor and the patient as an interpreter of dietary recommendations. She is a consultant, adviser, and assistant to the doctor to do what he lacks time or training to do. She is a friend to the patient as he makes the necessary adjustments and tries to change his life-long habits so that he may successfully cope with disease. She strengthens his faith in the diet and helps him to conquer appetite and temptation and eventually develop a philosophy of cheer and cooperation.

Building the Special Diet Around Normal Food

The dietitian tries to build the so-called special diet around normal food habits, fitting it into the family's scheme of living as much as possible. Psychologically, it is bad for a family to see one of its members having unusual food and fine delicacies. The patient himself begins to feel set apart and different. Jealousy crops out, fussiness increases, and there is an over-emphasis on the disease for which the diet was given. Often times a family sacrifices necessities for the luxuries of a diet for one person, or else the diet is given up in despair.

The patient must be given a diet proportionate to his income and fitted into the family food budget. The dietitian in the out-patient department plans food budgets for the whole family of the patient and gives valuable assistance to the weary mother who is trying vainly to feed her family adequately on a minimum budget, and now must have the added burden of a special diet. It is not always enough to teach only the patient. The whole family must understand the principles of the treatment as well as the actual diet, so that they will cooperate with him.

The Dietitian Consults the Social Worker's Reports

The dietitian works closely not only with the doctor but also with the social worker and the nurse. All four are dependent upon each other for a successful unified plan of treatment. The social worker reports to the dietitian situations which may influence the carrying out of some plan of dietherapy and often remedies the adverse conditions. When money for food is lacking she gets in touch with the social agency and procures the extra allowance.

Many dietitians began to work in out-patient departments of hospitals just a few hours a week at a desk in a corner of the hall near some medical clinic. Usually they came over to the dispensary from the diet kitchens. Dietetic treatment of the ambulatory patient was first formerly organized in 1918 at the Boston Dispensary by Miss Frances Stern. Since that time between 20 and 25 out-patient departments have opened special food, nutrition or dietherapy clinics with full-time dietitians and over 10 with part-time dietitians. Such a dietetic department is an accepted part of the dispensary set-up, a separate clinic organized similarly to any other special clinic, as nose and throat, eye, etc. . . . The dietherapy clinic should have one or more rooms in which the dietitian can arrange her equipment and teach the patients.

The need of a dietitian in the out-patient department was first felt in the diabetic clinic but that is a fairly old story. She plays an important role in the treatment of gastro-intestinal conditions such as colitis, various forms of constipation, duodenal or gastric ulcer, gall-bladder disease, cases of obesity and malnutrition. Allergy clinics find it difficult to succeed without a dietitian to cooperate closely with the doctors and to painstakingly teach the patients.

Preventive Work in the Field of Normal Nutrition

The modern trend in medicine is preventive. The clinic dietitian finds herself doing more and more in the field of normal nutrition. She tries to give the new baby a good start in life by teaching his mother how to eat during her pregnancy. Then in the well-baby clinic she teaches the mother how to feed him economically, the very best way according to modern science. By exhibits, lectures, and posters many people are being taught the principles of good nutrition and health. She is one of the nutrition educators of the community.

Logically, the out-patient dietitian, as the teacher of ambulatory patients, should teach the ward patients their discharge diets. This is ideal from the patient's standpoint. He makes a contact with the out-patient department while he is

still in the hospital. When he comes back for follow-up treatment he knows she will "check up" on him. There is a definite tie up between ward and clinic dietherapy. It is uniform and uninterrupted service and gives the patient the advantage of the specialist.

The dietitian in the out-patient department has an additional job besides teaching patients. She must accept her place as a teacher of students; dietitians, medical students, students in social work, and nurses. This may be formal or in many cases informal as teaching through example while being observed.

The advantages of a specialized service are subject to this one criticism. Interns working in the dispensary as physicians are relieved by the dietitian of tedious planning of diets and the teaching of patients. This limits the experience that is intended to fit them to practice medicine later in their own offices. The knowledge that they have about food and the treatment of disease with food may be sketchy and will probably undergo disintegration through disuse. This is a weak point in many out-patient departments. To overcome it, training for interns is recommended. It is suggested that they spend some time with the dietitian in observation and practice. This will prepare them to do a more careful and thorough job with their private patients.

The dietitian in the out-patient department should be a member of the department of nutrition of the hospital. She has a dual responsibility to the director of that department and to the director of the dispensary. Policies for the nutrition clinic should be determined by these three, together with the chiefs of the various clinics using the service, such as the gastro-intestinal, diabetic, pediatric, ante-partum, medical, etc. . . .

The dietitian's place has been well established in a department of her own—an integral part of the out-patient department of many institutions. Her clinic is functioning independently the same as every other clinic to give expert care to the patient in her own field. Dispensaries that have not taken advantage of such a clinic, have missed an opportunity for added service to the patient.

Hospital Association of West Virginia

The Twelfth Annual Convention of the Hospital Association of West Virginia was held in Wheeling, October 7 and 8.

Two sections of the conference were in session simultaneously during Thursday afternoon. The nursing section met at the Wheeling Hospital, and the group hospitalization section met at the Ohio Valley General Hospital. Thursday evening the president's session was conducted in the Assembly Room of Hotel Windsor.

At the general session held Friday morning and afternoon in the Assembly Room of Hotel Windsor members from all over the state participated in a general discussion program. The annual banquet and ball was held Friday evening at the Windsor. The speakers were Rt. Rev. John J. Swint, Bishop of the Wheeling Catholic Diocese; W. S. Fulton, M.D., president of the West Virginia Medical Association; and Arden E. Hardgrove, assistant secretary of the American Hospital Association.

Among the prominent speakers who participated in the program were: E. F. Heiskell, M.D., Morgantown; James W. Harris, Jr., Charleston; Ross Hunter, M.D., Charleston; W. E. McCue, Bluefield; William M. Sheppe, M.D., Wheeling; and Charles C. Warner, Charleston.

Association of Western Hospitals

The Annual Convention of the Association of Western Hospitals, and the Annual Meeting of the Western Conferences of the Catholic Hospital Association will be held concurrently with the Association of California Hospitals and allied groups and sections at the Fairmont Hotel, San Francisco, February 28 to March 3, 1938.

The 1938 Convention of the Association of Western Hospitals will feature six general assemblies, sectional meetings for directing and operating hospital personnel, and a display of commercial and technical exhibits.

Ohio Hospital Association

The Ohio Hospital Association will hold its Annual Convention in the Deshler-Wallick Hotel, Columbus, April 5, 6, and 7, 1938.

Coming Meetings

Association of Western Hospitals, San Francisco, California, February 28-March 3, 1938

Ohio Hospital Association, Columbus, April 5-7, 1938

Manitoba Hospital Association, Selkirk, June 23-24, 1938.

X-Ray Protective Materials

H. ELDRIDGE HANNAFORD, A.I.A., Cincinnati, Ohio

BEFORE discussing protective materials as such, it may be well to preface our discourse by calling attention to the fact that the need for extensive protection of Ray room enclosures is—to some extent—diminishing. New equipment is being brought out with its own protective enclosures which shield off in nearly all directions all direct radiation; and only the problem of protection from scattered radiation becomes pertinent in establishing the amount of protection needed in connection with the construction enclosing the Ray rooms.

In the subsequent discussion, however, we have based all thicknesses of built-in protective materials—for walls, floors, and ceilings—as those required to render proper protection against *direct radiation.* For required protection from scattered radiation the variations are so great for the different types of equipment that no definite rules may be laid down as having general application.

Basic Data

The "protection coefficient" of a protective material is the ratio of the thickness of that material to the thickness of lead absorbing a given x-ray beam to the same extent.

The "lead equivalent" of a protective material is defined as the thickness of lead required to have the same true absorption of a given x-ray beam as the protective material.

The two terms, as may be seen, are substantially synonymous.

In discussing the various x-ray protective materials the chief influencing factors are (1) practicability, (2) efficiency, (3) economy, (4) weights of materials, (5) utilization of minimum floor space.

The material used should have as high a "protective coefficient," or "lead equivalent," as possible—all other factors being equal.

In the following table we submit a list of the various practical construction materials used for x-ray protection and give some interesting comparative values.

Presented before the Construction Section, American Hospital Association Convention, Atlantic City, September 15, 1937.

The Author

● **H. Eldridge Hannaford is a member of the firm of Samuel Hannaford and Sons, architects of Cincinnati, Ohio, who have given especial attention to the planning and construction of hospitals.**

Table I

Material	*Lead Equivalent*	*Comparative Thicknesses, M.M.*	*Inches*
Lead	1.00	1.00	1/32 Plus
Lead Rubber	0.40	2.50	5/64 Plus
Lead Glass	0.20	5.00	3/16 Minus
Steel	0.15	6.67	15/64 Minus
Barium Sulphate	0.05	20.00	¾ Minus
Aluminum	0.01	100.00	3⅝ Plus
Brick	0.01	100.00	3⅝ Plus
Concrete	0.01	100.00	3⅝ Plus
Wood	0.001	1000.00	36¾ Minus

From the foregoing values it may be readily noted that a scant ⅛ inch thickness of lead is equivalent in protective value to a solid concrete or masonry wall 12 inches thick; a steel plate ¾ inch thick or a barium sulphate plaster partition 2½ inches thick.

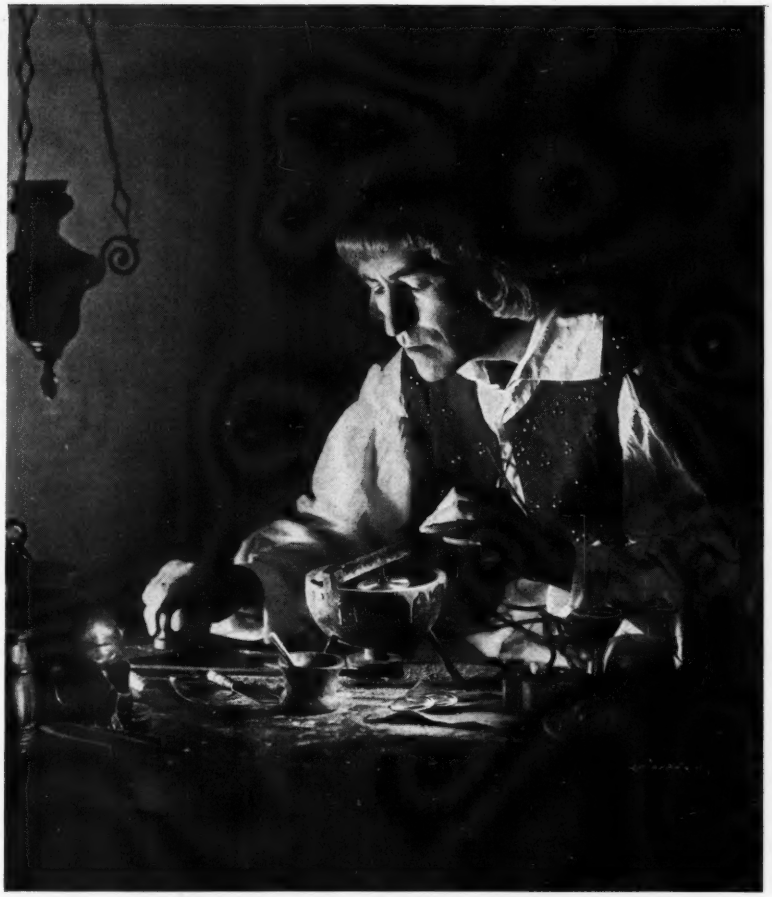
Since ⅛ inch thick lead weighs approximately 7 pounds per square foot of surface area, we have an interesting comparison as to relative weights to consider.

As peak voltages of 100 kilovolts and higher are used, the discrepancies become more marked, as shown on the following table:

Table II*

Peak Voltages not to exceed Kv.	*Minimum thickness of lead required mm.*
100	1.5
125	2.0
150	2.5
200	4.0
300	9.0
400	15.0
500	22.0
600	34.0

**Note*—These figures are taken from the National Bureau of Standards Handbook HB-20 "X-Ray Protection" issued July 24, 1936, by the U. S. Department of Commerce.



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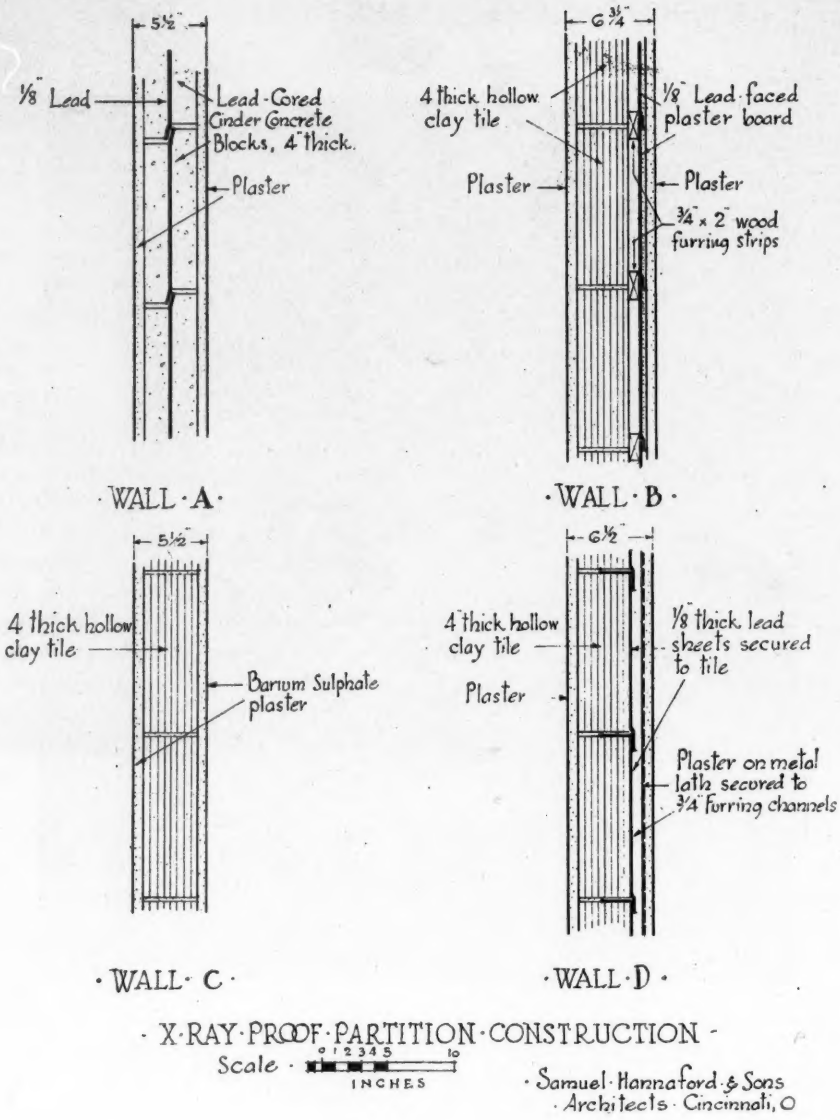

Conclusions

It appears that lead is the most effective, practicable, and economical material to use excepting only where the minimum protective thickness requirements are about 1 millimetre (mm.) where protective plaster of barium sulphate may be used and will prove effective *provided that no cracks develop* due to settlement, shrinkage, or other causes and thus nullify the protection.

Lead glass, must, of course, be used to give the operator visual control over his patient but its use is strictly confined to Control Room windows, and peeps in doors or screens.

Lead rubber may also be used for protection against relatively low voltages but is, as a rule, quite expensive.

The sections illustrated show some of the more common types of practical protective construction.

Taking wall A as our basis for comparison for cost and weight (the floor area occupied is indicated by the partition thickness given), we submit the following approximations:

Wall Type	*Comparative Cost, per cent*	*Comparative Weights, per cent*
A	100	100
B	90	95
*C	80	100
D	100	95

*Note—To be used only where not more than 1/32-in. lead equivalent is required.

CO-ORDINATION

When the success of a plan depends upon its perfect execution there must be strict co-ordination between the individuals involved. No program of treatment can relieve the incidence of constipation unless the patient is willing to co-ordinate his efforts with those of the physician. That is why so many doctors prescribe Petrolagar for their patients. Its pleasant taste and gentle consistent action are acceptable to the patient as well as to the physician . . . . Five types of Petrolagar provide a choice of medication to suit the individual case . . . . Samples on request. Petrolagar Laboratories, Inc. • Chicago, Ill.

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Petrolagar

Legal Decisions of Interest to Hospitals

NOTES upon court decisions which affect hospitals, or where the hospital was a party to the litigation.

● Copies of all issues of the magazine containing "Legal Decisions of Interest to Hospitals" should be carefully filed for future reference. The series of articles when completed will contain citations of all the legal cases for each state, as well as the court decisions in the Federal and Canadian Courts. This column will discuss each new case as it is reported.

Mississippi

Liability of "Company" Hospital for Negligence

Eastman, Gardiner & Co. v. Permenter, 111 *Miss.* 813, 72 *So.* 234

This case arose out of a suit to recover damages for the failure of defendant company to furnish the plaintiff with a physician according to the terms of a contract. Plaintiff was an employee of defendant and was a beneficiary under a hospitalization plan operated by defendant. Plaintiff was assessed $1.00 to $1.50 each month. His child became ill, and was treated by the company surgeon. This cause of action was based upon the alleged refusal of the surgeon to pay regular visits to the child which allegedly resulted in aggravation of the child's sickness. It appeared that the child had suffered from cretinism since birth. A judgment in favor of plaintiff was reversed.

The court said: "It is a well established rule of law that, where the master makes deductions from wages of his servants and administers the fund so collected for the benefit of those who fall sick or sustain injury while in his employment and devote the entire amount thus collected to the payment of the physician to render medical assistance and receives himself no pecuniary profit from the funds thus created, he is not liable for the negligence or unskillfulness of the physician or surgeon employed, provided he has exercised due care in selecting the physician."

Industrial organizations, generally, are not held liable in cases like the one here noticed. However, a minority of courts have held them liable. The ground upon which liability has been denied is that the funds collected from the employees are trust funds and are not to be used to pay claims arising out of the negligence of employees of the company hospital or medical organization.

A case involving the same question of liability is that of *James v. Yazoo & M. V. R. Co.,* 153 *Miss.* 776, 121 *So.* 819. Here, the plaintiff was an engineer employed by the defendant, and received an injury to his eye as the result of its being struck by a cinder. He was, as an employee, entitled to hospitalization in the hospital maintained by the defendant. This hospital was a non-profit organization, and was operated out of funds collected from the employees of the company. Plaintiff went to the company hospital at New Orleans. The doctor in charge, finding that the hospital facilities were not adequate for removal of the cinder, had the plaintiff come to his office for treatments. His condition grew worse, and the vision was lost in his eye. Plaintiff brought suit upon the ground that the medical treatment rendered him had not been sufficiently attentive or skillful. A judgment for defendant was affirmed.

The court relied upon the Permenter case and held that the proof was insufficient to show that the doctors employed by defendant were unskillful or incompetent. Further, the proof failed on the issue whether defendant's hospital was adequately equipped.

Liability of Charitable Hospital for Negligence of Nurse

Mississippi Baptist Hospital v. Moore, 156 *Miss.* 676, 126 *So.* 465

Mrs. Moore, plaintiff, sued the hospital, a charitable organization, to recover damages for injuries caused by the negligence of the defendant in taking x-rays of her arm. The plaintiff had broken her arm and was advised by her physician to have an x-ray made by the hospital. She did so, but the plates failed to show a fracture. As a result of this her physician treated her for sprain instead of fracture, causing her arm to become disabled from ankylosis. A judgment for plaintiff was reversed.

The defendant was held not liable upon the ground that it was a charitable hospital, the court using this language: "The court has decided that charitable institutions administered solely for charity and not for profit . . . are not liable for the negligence of their servants and physicians, where the hospital has exercised due care and caution in selecting such agents and physicians. . . .

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The MEDICAL BUREAU

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In such cases the patient's right of action is against the physician personally who treats him, and consequently negligence resulting in the injury is against the servant personally who inflicts the injury or is negligent in performing the duties assigned to him. All that the hospital is required to do in such case is to exercise due care and caution in selecting the physician or servant; if it is negligent in those respects, then it is liable to the patient, and consequently the liability under the indemnity policy (the hospital carried insurance) is for this negligence; that is to say, negligence in the selection of suitable servants and physicians and proper facilities ordinarily used in a hospital."

With regard to insurance the court said: "The policy has a basis upon which to operate, and by its terms is limited to cases where liability is imposed by law. It did not contract to indemnify the patients against the negligence of the physicians or servants of the hospital, if there was no liability of the hospital under the law of the land in respect thereto."

Finally, the Mississippi court thought it "exceedingly doubtful" whether plaintiff had made out a case of negligence against the defendant.

Courts have generally held that the fact of insurance is immaterial upon the question of liability; that is to say, public liability insurance will not of itself impose liability upon a charitable organization if no liability exists under the laws of the state.

In *Pace v. Methodist Hospital, etc.*, 130 *So.* 468, the same question was involved. The notation on this case in the reports is: "Not to be officially reported." However, it can be gathered from the short opinion that this was a suit to recover damages for personal injuries, and that a judgment was rendered in favor of the defendant. This judgment was affirmed. The court followed the cases previously noted and held that it would not overrule those decisions.

Apparently the plaintiff had relied upon the negligence of the employee, a nurse, to effect a recovery. Clearly, no recovery could be had, for the rule allows recovery of damages only where plaintiff can show negligence on the part of the hospital in selecting the servant or employee whose acts caused the injury complained of.

Liability of Private Hospital for Negligence

Meridian Sanatorium v. Scruggs, 83 *So.* 532

Plaintiff Scruggs sued the sanatorium to recover damages for personal injuries brought about by the negligence of a nurse in placing a hot water bottle against her right foot, thereby causing a severe burn. The court affirmed a judgment for the plaintiff, saying: "The evidence, we think, is ample to support a verdict, and that a hospital conducted for private gain is liable in damages to patients for injuries resulting from negligence of the nurses and employees. A patient is generally admitted to a hospital conducted for private gain under either an express or implied obligation that he receive such reasonable care and attention for his safety as his mental and physical condition, if known, may require."

This decision is in accord with the rule that private hospitals are liable for negligence in the same degree that any other private corporation or individual is liable.

Another case, *Maxie et al v. Laurel General Hospital*, 93 *So.* 817, dealt with the question of liability of a private hospital. Here, the parents of a child of eight years sued to recover damages for her death, caused when she fell from a bed, unattended, shortly after an operation. It appeared that the accident took place while the child was still under the influence of anesthesia, and while the nurse was absent from the room. Defendant made a motion for a directed verdict, which was allowed, thus taking the issue of negligence away from the jury. Upon the appeal this judgment was reversed, and it was held to be error to allow a motion for a directed verdict inasmuch as there was evidence from which the jury might have found that the hospital and its employee was guilty of negligence.

In cases of this type, of which there have been several, the hospital owes the duty of providing a competent attendant to see that the patient does not hurt himself while in a state of semi-consciousness. Several patients have met death, usually while in a delirium, as the result of a nurse absenting herself from the room. That period of time in which the patient is not responsible mentally has produced many serious cases. Hot water burns are the most common injuries, and as a result have involved hospitals in many costly law suits. While only reasonable care is required on the part of attendants, yet, in a period of coma of the patient, that care must be extended beyond the accepted meaning of the word reasonable."

Recent Cases

Hospital Bill as Preference on Settlement of Estate

Park View Hospital Association, Inc., v. People's Bank and Trust Company, 211 *N.C.* 244, 189 *S.E.* 766

This was a controversy without action based upon an agreed state of facts, by the hospital against the bank as executor of a deceased patient. The question was whether a bill of $655.60

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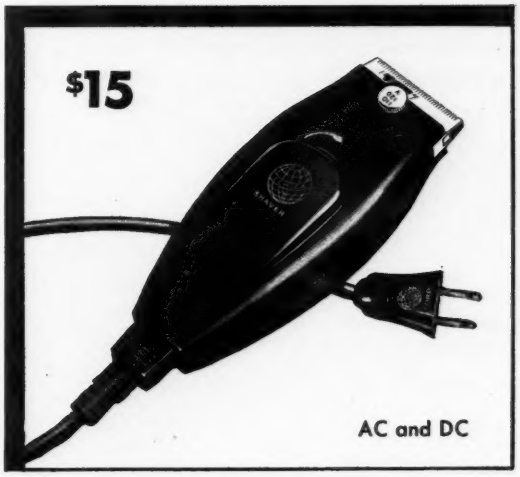

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for 97 days' hospitalization was a preferred claim against the estate of the patient under a statute which created a priority in favor of bills for medical service rendered within twelve months preceding death. A bill was rendered for $159.00 for board for graduate nurses who had attended the deceased, and $3.50 for meals for deceased's wife. These amounts were excluded by the lower court, the balance of the bill being allowed as a preference.

The Supreme Court said: "The words 'medical services' as used in the statute, include all services rendered to the deceased, because of his illness, upon the advice of his physician, which were reasonably necessary for his care and comfort, and for his proper treatment by his physicians." It was held to have been error to exclude the amount due the hospital for board for the graduate nurses. It may be said that generally, provision is made by state laws for creation of certain preferences as to the allowance of claims against an estate. Among these preferences are expenses incurred during the last illness of the person whose estate is under administration. Thus, doctors and hospitals, along with other preferred creditors, are paid before general creditors are paid.

Negligence—Whether Private Hospital Is Liable

Kamps v. Crown Heights Hospital, Inc., 296 *N.Y.S.* 776

This was an action by husband and wife against the hospital, to recover damages for the negligent treatment of the plaintiff wife by a nurse. Plaintiffs took a judgment which was reversed on this appeal, and their complaint was dismissed.

It was shown that the nurse had been specially retained by the wife to render nursing service to her, and it further appaered that plaintiffs paid this nurse, but that the hospital did not. Under such facts there could be no relation of master and servant between the hospital and the nurse, therefore, the doctrine of respondent superior could not be applied inasmuch as the negligent act of the nurse could in no way be binding upon the hospital.

Missouri

Negligence—Whether Charity Is Liable

Ends v. Y. W. C. A., 325 *Mo.* 577, 29 *S.W.* (2) 701

This was an action by an employee of defendant, a charitable corporation, to recover damages for injuries sustained by her in an elevator accident. Plaintiff appeals from an order of nonsuit.

Clearly, defendant was incorporated as a charity, and the court held that the fact that it made a profit in some departments would not, alone, change defendant's status in the eyes of the law. If an organization is in fact charitable primarily, then the fact of its deriving some profit is not determinative of its status.

The attitude of the Missouri Court is best noted by reference to this language: "There can be no logical reason why the same rule of exemption applied to a charitable hospital association should not apply to a charitable association such as the Y. W. C. A."

This case, while involving an organization which does not permit hospitalization, is nevertheless applicable to charitable hospitals. It has been selected not only for that reason, but also because its opinion is the most recent exposition of the law applicable to negligence cases involving charitable organizations in Missouri.

The case is of further importance in that it holds that the trustees of a charitable organization are not to be held liable for mere nonfeasance in their functions as trustees. Plaintiff had alleged that the trustees were under a duty to inspect the premises and to be informed of their condition for the purpose of preventing injury to third persons. Now the duties of the trustees consisted in conserving and investing the funds of the corporation. To that extent only were they active in the management of the association. Consequently, not exercising control and supervision over the actual operation of defendant's building, the trustees could not be held liable. There has been some difference of judicial opinion on the question of liability of trustees. However, the better rule seems to be that they are liable for negligence in the operation of the charity only where they have actually given orders, or participated in some way in the negligent act complained of.

Negligence—Charity Not Liable

Nicholas v. Evangelical Deaconess Home and Hospital, 281 *Mo.* 182, 219 *S.W.* 643

Plaintiff, a pay patient, sued defendant charitable hospital to recover damages for injuries suffered by her as the result of negligence on the part of one of defendant's nurses in administering a carbolic acid solution. The trial court sustained a demurrer to plaintiff's evidence, and the jury returned a verdict for defendant. The ruling of the lower court was affirmed.

The nurse in question was a private nurse, paid by the patient. Consequently, the negligence of

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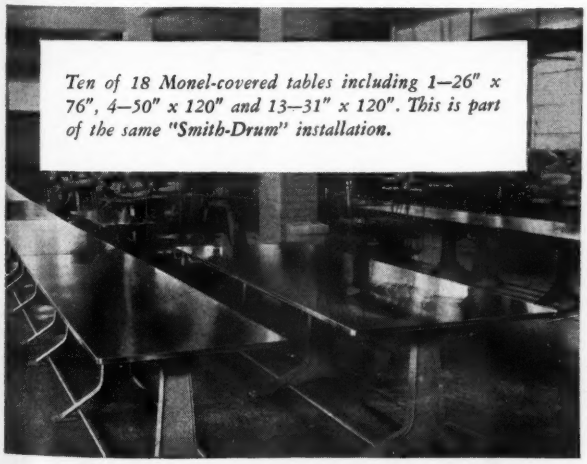

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the nurse could not be made the negligence of defendant, for the nurse was not in defendant's employ. Further, defendant was clearly a charitable association, and could not have been held liable for the negligence of one of its own nurses.

The Missouri Court carefully pointed out that plaintiff's being a pay patient could make no difference on the question of liability of a charitable organization. This ruling would seem to be a good law in all states.

Negligence—Private Hospital Liable

Davis v. Springfield Hospital, 196 *S.W.* 104

This was an action by a wife to recover damages for the death of her husband, alleged to have been caused by the negligence of defendant. A judgment in favor of plaintiff was reversed and the case was remanded.

Defendant was a private corporation, and received plaintiff's husband as a pay patient. He was given a room on the third floor, and at the time of his entrance as a patient was in a semi-delirious condition. Upon several occasions the patient was found out of his room in a delirious condition. He did not have a private nurse. Decedent was found on the ground beneath the window of his room and died about four hours later.

The court held that the evidence did not disclose that decedent had done anything which would lead a reasonably prudent person to anticipate that he would jump from the window of his room, and that the hospital was not guilty of negligence in failing to guard the window. It was held, however, that it would be for a jury to say whether it was negligence to permit decedent to be unattended so as to permit him to walk to a fire escape from which he might have fallen. (There was some doubt as to whether he had fallen from his window, or from the fire escape.)

Generally, it is the duty of a hospital to furnish a patient with the care and attention that his *known* condition requires. Applying this test, some courts have held hospitals (non-charitable) to be liable in similar cases. As a practical matter, delirious patients should be carefully guarded, even though they do not hire special nurses. Prudence dictates that the hospital should exercise a higher degree of care with regard to such people, for their actions are largely unpredictable.

This case was remanded for a new trial, which was had, resulting in a judgment in favor of the plaintiff. An appeal was taken, and the judgment rendered was affirmed. *Davis v. Springfield Hospital,* 204 *Mo. App.* 626, 218 *S.W.,* 696. The court held it to be a jury question whether defendant was guilty of negligence in failing to guard the deceased. Of the care required of a hospital in such cases, the court held it to be the duty of a hospital to use reasonable care and diligence, not only in treating patients, but also in safeguarding them from dangers produced by their mental incapacity. The degree of care required is to be measured by mental incapacity and also by a consideration of the dangers which may be produced by any particular mental traits which are exhibited to the hospital. This requirement of care is limited by another rule—that no one is required to guard against that which a reasonable person, under the circumstances, would not anticipate as likely to happen. Such a formula is of assistance only to lawyers. Spelled out in practical terms, it means this—the hospital, to protect itself, must protect the patient from the consequences of his own irrational behavior. The courts are not concerned with *how* this protection is offered—they require only that it *be* offered in cases of this kind.

Negligence—Charitable Hospital Not Liable to Employee

Whittaker v. St. Luke's Hospital, 137 *Mo. App.* 116, 117 *S.W.,* 1189

Plaintiff, an employee, was injured as the result of her hand being caught in an allegedly defective ironing machine. It appeared that a guard on the machine was out of place. Defendant took a judgment which was affirmed.

The defendant being a charitable hospital, it would not be held liable for negligence. The court said: "We think the better rule of decision in the present case is that the respondent (defendant) is not liable."

Adams v. University Hospital, 122 *Mo. App.* 675, 99 *S.W.* 453

Plaintiff sued to recover damages for burns he received from a hot water bottle placed on his body while he was subject to the influence of an anesthetic. Defendant was a charitable corporation and a judgment was rendered in its favor.

The court not only held that defendant was not liable for the negligence of its nurses, but also held that it was not liable for its own negligence in failing to use due care in selecting those nurses. Thus, the court exempted the hospital from liability, and in so doing, held for the broadest exemption possible. Many cases hold the hospital liable *if* plaintiff can show that defendant failed to exercise due care in the selection of the employee in question. Very seldom are hospitals held liable on that ground, for it is very difficult to prove that the hospital authorities failed to use due care in selecting the employee.

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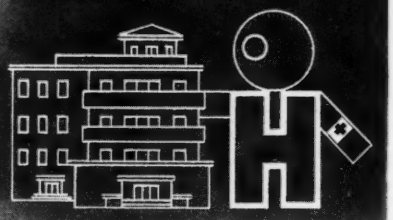

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Hospitals Day by Day—Some Pointed Paragraphs

WALTER E. LIST, M.D., Cincinnati, Ohio

The purchase of the cheapest article offered, in the long run, frequently is the most expensive. But do not buy the most expensive article simply because it is the most expensive.

* * *

The employees of our hospitals should have a good wage, good hours, and good working conditions, but the management, and not labor unions, must dictate how the hospital is going to operate. The responsibility of caring for the sick is such that no outside influence must be permitted to interfere with it.

Asa S. Bacon

The interns should be taught in treating a disease that the patient is not to be overlooked.

* * *

No hospital is fulfilling its obligation to a community unless it is doing its best to promote scientific research.

Lewis E. Jarrett, M.D.

Some practices which raise the temperature of the refrigerator and increase the consumption of current are opening the doors with unnecessary frequency, leaving the doors open or unlatched, holding the doors open while discussing some point of procedure with a fellow worker, and putting cooked foods into the icebox before they are sufficiently cooled. When coils are not automatically defrosted attention should be given to clearing them before their efficiency is impaired by a heavy layer of frost. Keeping the cabinets colder than necessary is more than an extravagant use of current; it causes deterioration in flavor and appearance of delicate perishable fruits and vegetables.

Lulu G. Graves

A hospital accounting system should be designed to provide a guide to the administrator in appraising economic performance; it should also be such as to be readily comparable with other hospitals. It should constantly be remembered that a clear, concise, and full statement of the economic performance of a charitable institution, when widely publicized, is the surest method of promoting community interest. The absence of such an accounting constitutes a deterrent to those who are benevolently inclined.

A successful hospital administration depends upon the competence of the superintendent, and the degree of support he receives from the controlling board and the professional staff. Any action taken by either the controlling board or medical council which curtails the authority of the superintendent within the institution or interferes with his administration or control is subversive of discipline, destructive of morals, and prejudicial to the proper care and treatment of the patients.

* * *

Unless the superintendent is permitted to select employees who will harmoniously fit into the hospital organization and he is accorded the right to discharge those who do not meet the standards of performance and conduct required, he cannot be held responsible or accountable for the administration.

* * *

Social service is one of the essential departments of a hospital supported by public funds to which gravitate so many human derelicts presenting grave sociological and economic problems. Physicians are gradually coming to a realization of the fact that social data is essential to a complete understanding, diagnosis, and treatment of their patients, and that the trained medical social worker is an invaluable aid in procuring this information. It is generally conceded that social and environmental factors have a distinct influence on mental and physical development—thus, the physician who is able to see the patient as a whole, with all the social facts which have a bearing on the current illness, is able to treat and plan for the patient much more intelligently and effectively than if he were uninformed in regard to the patient's tendencies, environment, economic status, home life, play, and work. It is, therefore, hoped that while stressing the necessity and desirability of economic investigations, this department will be permitted to further extend its activities to the wider field of medical social case work. The social service department should function directly under the administrative control of the superintendent; it should embrace within its scope social investigations of every patient admitted to any of the institutions and out-patient department, and it should strive for a complete follow-up system.

William H. Walsh, M.D.

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One of the most effective means for the administration of Oxygen in prolonged cases is the Nasal Catheter method — used and recommended by Doctors who have made a study of the value of Oxygen therapy.

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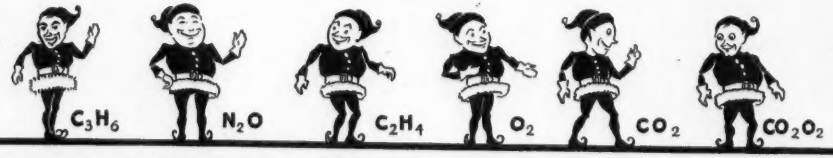

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The Hospital Book Shelf

PUBLIC MEDICAL SERVICE. By Michael M. Davis. University of Chicago Press. 1937. $1.50

This survey of tax-supported medical care in the United States is a valuable contribution to the much discussed question of the economics and sufficiency of medical care for the people as a whole.

Questions of home medical care, acute and chronic disease, the relation of tax bodies to non-governmental hospitals and care for non-dependent groups are all considered in the light of the wealth of statistical knowledge which has been assembled in the last ten years. Much attention has been given to the closer coordination of public health activities and non-government agencies, to tax-supported medical care, its quality and to those diseases which carry a general public health interest.

Doctor Davis has made a distinct contribution by assembling the latest thought on these questions that are of so much public interest and which are so prominently in the minds of all those concerned in the broader question of the adequate care of the sick.

HANDBOOK OF CURRENT PRACTICES IN OXYGEN THERAPY EQUIPMENT. Linde Air Products Company, New York. Free on request.

Oxygen has already demonstrated its therapeutic value and is daily finding so many new therapeutic uses that every doctor and nurse should be familiar with the accepted technique of its use.

Oxygen is usually supplied compressed in cylinders to pressures as high as 2,000 pounds per square inch, and this may be as dangerous in the hands of the uninstructed as it is helpful in the hands of those trained in its use.

Doctors and nurses are not usually mechanics and this brochure will be of great value to them by describing the techniques and precautions needed in handling this valuable therapeutic agent.

Descriptions are couched in simple non-technical language but are clear and read in connection with the many illustrations, cannot fail to give the reader a thorough understanding of the mechanics of managing oxygen therapy apparatus.

CLINIC DIRECTORY OF CHICAGO. Council of Social Agencies. 1937. 25c plus 1c tax.

The revision of the directory originally issued in 1934 should be familiar to every clinic and social worker in Chicago.

Chicago has four tax-supported special clinics but no tax-supported general medical or surgical clinics. Each of the 34 privately supported clinics must limit its activities to its available budget. For this reason each must place very definite restrictions on the type and number of cases it can admit.

This directory gives for each clinic its address, telephone number, transportation available, and information as to eligibility and limitations on admissions, clinic hours for each section, methods of making appointments, information service, and regulations governing fees, transfers, etc.

With the wide geographical distribution of the clinics, the wide variation in types of patients admitted, and variability of clinic hours, the clinic worker will find this directory a definite time saver for himself as well as for the patient.

PHYSICIANS AND MEDICAL CARE. By Esther Lucille Brown. Russell Sage Foundation. New York City. 1937. 75 cents.

This monograph is the fourth in a series dealing with the present status of certain established or emerging professions in the United States.

NURSING AS A PROFESSION was published in October, 1936.

The evolution and development of medical education, its present status, an outline of the functions of the various nation wide agencies and organizations having to do with medical education and medical practice and the ratio of physicians to population together with the average income of physicians in typical communities—all are given a short but comprehensive consideration.

Particular but impartial attention is given to the present controversial questions of medical economics.

This presentation cannot fail to interest all those interested in the broader phases of the development and present status of medicine as a profession.

It Takes a *Brave* Man to be a Doctor

The responsibilities medical men are heir to are not for the craven, the weak or the timid. Going into partnership with Nature is *a man size job.*

We derive satisfaction from our *own* job in eliminating one of the manifold worries that can beset the Doctor.

For we have produced ready to use intravenous solutions safe for the veins of your patients—solutions in which you may repose your utter confidence . . . *Baxter's solutions!*

All of us can't be Doctors. *Some* of us must provide the working tools the Doctor uses. But Doctors or Doctors' *right bowers*—we can be faithful—sincere, we can safeguard quality and take our responsible jobs to heart and keep the faith—*your* faith, Doctor!

This thing *we do*—we *pledge* to do it.

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CHICAGO NEW YORK

News Notes

Fanny Carter, superintendent of the Alexandria Hospital, Alexandria, Virginia, for the past twenty-one years, has retired. The successor to Miss Carter has not been named.

Ellen G. Creamer, of the New York Department of Education, began her duties as directress of nurses at the Post-Graduate Hospital, New York City, on October 1. Marjorie B. Little, who formerly held this position, was married recently.

Cora E. Gould has been appointed superintendent of Westfield Children's Country Home, Westfield, New Jersey. Miss Gould goes to Westfield from the Orange Memorial Hospital, Orange, New Jersey, where she held the position of purchasing agent for several years.

E. B. Gunter, Jr., has been appointed business manager of the Aiken County Hospital, Aiken, South Carolina.

E. C. Hazen, superintendent of the Glenn County Hospital, Willows, California, resigned recently.

Archibald Douglas Kincaid, Jr., has accepted the position as administrator of the new 65-bed Cabarrus County Hospital, Concord, North Carolina. Mr. Kincaid was formerly field representative of the Duke Endowment.

Mrs. Tillie Klagle has been named superintendent of the Lutheran Deaconess Hospital at Beaver Dam, Wisconsin. Mrs. Klagle succeeds Hilda Whitefoot, who resigned recently.

Anne Lunney succeeds Mrs. Beulah Mitchell Satterfield as superintendent of the Greenwood Hospital, Greenwood, South Carolina.

James B. Markey, M.D., has been appointed superintendent of the Western State Hospital, Hopkinsville, Kentucky. Dr. Markey succeeds Dr. E. L. Busby who has been transferred to the superintendency of the Central State Hospital, Lakeland, Kentucky.

Ernest M. Morris, M.D., resigned October 11 as superintendent of the Fall River General Hospital, Fall River, Massachusetts. Dr. Daniel F. Gallery has been placed temporarily in charge of the hospital.

Sister Mary Otilla has been appointed superintendent of the Ohio Valley General Hospital, McKees Rock, Pennsylvania, to succeed Sister Mary Concordia who resigned because of ill health.

Marie Pinn, night supervisor at Fairview Sanitarium, Chicago, has been appointed assistant superintendent of the women and Children's Hospital, Chicago.

Sarah K. Ruhl, R.N., resigned October 31 as assistant superintendent of the Evangelical Deaconess Hospital, Monroe, Wisconsin. Miss Ruhl has been connected with the Evangelical Deaconess Hospital for the past twenty years.

Fern Schweiger of Waukegan, Illinois, has been appointed superintendent of the Bismarck Evangelical Hospital, Bismarck, North Dakota.

Margaret Scott, R. N., has been appointed superintendent of the new 65-bed Troup-LaGrange Hospital, LaGrange, Georgia. Miss Scott was formerly assistant superintendent of the Henrietta Egleston Hospital for Children, Atlanta, Georgia.

Alice Shearer, supervisor of nurses at the Lankenau Hospital, Philadelphia, has accepted a position as superintendent of the American Stomach Hospital in Philadelphia.

Madeline Smith, superintendent of the Reception Hospital, Saranac Lake, New York, for the past ten years, resigned recently. Miss Gertrude Kelly, the assistant superintendent, was appointed to succeed Miss Smith.

F. H. Weedon has assumed his duties as business manager of the Mary Black Clinic and Hospital, Spartanburg, South Carolina.

Bernelda Winebrenner, formerly connected with the W. A. Foote Memorial Hospital, Jackson, Michigan, has accepted the superintendency of the Thorne Memorial Hospital, Hudson, Michigan.

Herbert Wortman, M.D., former chief resident surgeon, Germantown Dispensary and Hospital, Philadelphia, has been appointed assistant director of the Mountainside Hospital, Montclair, New Jersey. Doctor Wortman assumed his new duties at Mountainside Hospital on October 1.

George A. Wright, M.D., has resigned as superintendent of the Southwestern State Hospital,

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SELECTION... blending... roasting—these are the three most important steps in producing a superlative coffee. In each process we are specialists. We import our own coffees from the leading coffee growing countries of the world. We blend them according to our exclusive formulas based on a half century of coffee experience. We roast them fresh every day in our plants at Chicago and Brooklyn. This is threefold assurance that you can get no finer coffee for the price. It gives you more cups per pound besides the satisfaction of serving the best. It means that at a saving you get the result of a priceless experience and years of experiment.

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Manufacturing Wholesale Grocers
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Marion, Virginia. Dr. Wright's resignation will become effective December 1.

LaGrange, Alabama—Governor Graves of Alabama is asking the aid of the governors of Mississippi and Tennessee in establishing a "Roosevelt Memorial Hospital" in the Tennessee Valley, to be built at LaGrange, Alabama.

Clarksville, Arkansas—Final plans are being completed for the proposed $45,000 hospital for Clarksville, Arkansas. The hospital will be financed through a loan and grant from the PWA, with the loan to be retired through an added millage tax, voted at a special election last December.

Prairie Grove, Arkansas—Contract for construction of a $25,000 hospital at Prairie Grove, Arkansas, has been let and ground is to be broken at once. The new hospital which is to be erected for Doctors Frank and Cecil Riggall is expected to be ready for occupancy by February 1.

Los Angeles, California—The City Council of Los Angeles has voted in favor of drafting an ordinance which would permit construction of a $100,000 maternity hospital on the site of the old William Desmond Taylor motion picture studio.

San Francisco, California—To safeguard the lives and health of nearly 3,000 patients and inmates of San Francisco Hospital and Laguna Honda Home, Mayor Rossi declared a *state of emergency* at the two institutions which enabled him to retain present employees in their positions until the Civil Service Commission can provide eligibles to take their places. The new civil service charter amendment, approved at the last election, placing institutional help under civil service affects approximately 600 workers at city institutions.

San Francisco, California—Under terms of the will of William E. Price, retired electrical engineer, who died in Reno, September 7, the greater part of an estate valued at nearly $250,000 was left to the Shriners' Hospital for Crippled Children, San Francisco.

Santa Monica, California—A group of doctors of Santa Monica, California, has been authorized by the Sisters of the Little Company of Mary, Chicago, to purchase property for a $350,000 hospital, to be operated by the Sisters.

Colorado Springs, Colorado—Through the kindness of Mr. and Mrs. C. W. Daniels, formerly of Pueblo, now retired and living in Colorado Springs, a new recreation hall is to be added to the facilities of Beth-El Hospital at Colorado Springs. The addition which will be erected at a cost of approximately $12,000 will provide a recreation hall, an assembly room, and a place for play and for sun baths.

Cordele, Georgia—An apartment house is being converted into an 18-bed hospital in Cordele, Georgia. The building will be completed within three months. Plans for the construction of the building were negotiated by Dr. Charles Adams, local physician, after city and county officials announced they would be unable to appropriate funds to erect a hospital to replace the city infirmary burned in February.

Alton, Illinois—The new Alton Memorial Hospital which has been erected at Alton, Illinois, by Miss Eunice Smith of Alton and Mrs. Paschal E. Hatch of Springfield, in memory of their parents, Mr. and Mrs. William Elliott Smith, will be dedicated November 2. The hospital, which has a capacity of 75 beds, is built in three three-story units.

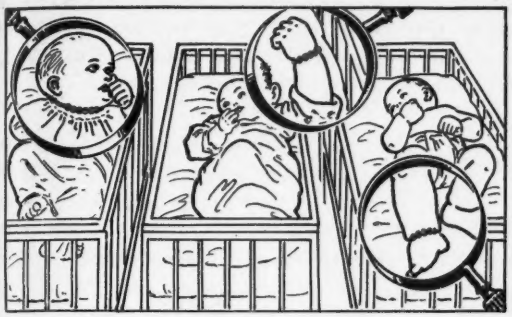
Alton, Illinois—The $535,000 St. Joseph's Hospital, erected by the Sisters of Charity at Alton, Illinois, was dedicated October 7. The new hospital is a five-story building and has a capacity of 140 beds.

Peoria, Illinois—Ground has been broken and construction is progressing on a new nurses' home at the Peoria Municipal Tuberculosis Sanitarium, Peoria, Illinois. It is expected that the new home will be ready for occupancy in the spring of 1938. According to contracts, the construction will cost $84,343.25.

Anderson, Indiana—A new two-story brick building to be used as a nurses' home is being added to St. John's Hospital, Anderson, Indiana. The addition will cost $40,000.

Fort Wayne, Indiana—Following the approval of an $82,700 WPA grant to meet labor costs, plans have been made to start construction of a $125,000 hospital unit and an addition to the nurses' quarters at the Irene Byron Tuberculosis Sanitarium, just north of Fort Wayne, Indiana. The new building, which will be two stories in height and of brick construction, will be named the "Hurty Building," after Dr. J. N. Hurty, former state health commissioner.

Des Moines, Iowa—An expansion program has been announced for the Iowa Methodist Hospital of Des Moines, Iowa, which will make possible more free service and increase the capacity of the hospital from 279 beds to 400 beds. It is esti-



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They also offer several variations of the "double check" identification system. They are the sealed-on "Made-in-America" name bearing identification. *Write for sample, low cost, etc.*

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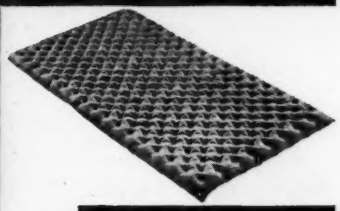
A new low priced air mattress. Bed weary patients will welcome the relief this mattress provides. Made especially to our own specifications, on a quantity basis which enables us to offer it to you at a phenomenally low price.



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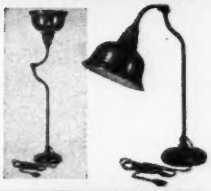
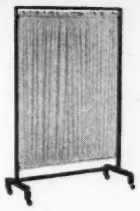
Portable Bedsides
Of inestimable value as protection against "rolling-out-of-bed" accidents. Fit any bed. Easy to attach, easy to install, fold down in a jiffy. Exceptionally sturdy in construction, made of good quality steel tubing . . . finished in brown and mahogany to match beds. A much-needed safety accessory.



New Bedside Lamp
A novel and practical idea in a bedside lamp . . . combining special design which provides "extra reach", with two-intensities illumination and indirect lighting. Double filament lamp gives bright light for reading, examinations, etc., and subdued night light. Shade may be inverted for soft, indirect general illumination.

Wood Furniture
A new line of beautifully made, handsomely finished wood furniture for patients' rooms, dormitory, dining room, lobby, etc. Practical in construction. Made of enduring Vermont Rock Maple in authentic designs appropriate for hospital service.



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mated the building improvements will exceed $200,000.

Oskaloosa, Iowa—Mahaska county doctors have interested themselves in the proposed restoration of the nurses' training school at the Mahaska Hospital, Oskaloosa, Iowa, and have signed a petition addressed to the hospital trustees, requesting immediate consideration of the nursing school proposition. Mahaska Hospital is confronted with a shortage of nurses and the situation is growing worse instead of better.

Norton, Kansas—Work was started in September on the new $500,000 hospital to be erected on the State Sanatorium grounds at Norton, Kansas.

Frankfort, Kentucky—Bids have been received on the new King's Daughters' Hospital at Frankfort, Kentucky, and final arrangements are being made to start construction. The new building will cost approximately $200,000 when completed; the low bids on the work totaled slightly under that figure.

New Orleans, Louisiana—The Mercy Soniat Memorial Hospital, New Orleans, has just completed its building, remodeling, and refurnishing program, which was made possible by the generosity of several friends. A new brick laundry has been built and equipped, a general electrocardiograph and an electro surgical unit have been installed, and eight private rooms have been remodeled and refurnished.

Baltimore, Maryland—According to the will of Miss Amelia Marburg of Baltimore, who died recently, a bequest of $100,000 is to be divided equally between Johns Hopkins University and Johns Hopkins Hospital. Other bequests amounting to approximately $70,000 were left to various hospitals and societies for the cure and prevention of disease.

La Plata, Maryland—Plans have been started for the construction of a new Charles County Hospital in or near La Plata, Maryland. A public subscription provided $11,000 for the hospital, and the county will give $25,000 from a bond issue.

Boston, Massachusetts—The new $1,575,000 surgical building of the Boston City Hospital, which was completed March, 1936, but has not been occupied, was officially opened recently. The new building is to be called the "John J. Dowling Building," in memory of the late superintendent, who died in office two years ago.

Hillsdale, Michigan—The City Council of Hillsdale, Michigan, has approved the proposed new $170,000 city hospital and health center and a site will be chosen soon for the project. The W. K. Kellogg Health Foundation of Battle Creek is sponsoring the plan and will finance the greater part of the expense in cooperation with the WPA.

Tecumseh, Michigan—Articles of incorporation for the Tecumseh Hospital of Tecumseh, Michigan, have been filed with the county clerk in Adrian.

Greenwood, Mississippi — Plans are being worked out by the Staple Cotton Cooperative Association and leading delta planters for the establishment of a hospital for negroes in the delta. The proposed hospital which will cost approximately $100,000 will in all probability be located in Greenwood, Mississippi.

Macon, Mississippi—The new Macon Hospital, Macon Mississippi, was dedicated and opened to the public recently.

Lamar, Missouri—The new Bickel Hospital completed recently at Lamar, Missouri, has been formally opened to the public. The hospital was built under the direction of Dr. Verne Bickel.

St. Louis, Missouri—The contract for construction of the new Marine Hospital in Kirkwood, to replace the present Marine Hospital in St. Louis, was awarded by the treasury department at Washington to Foster and Creight & Co. of Nashville, Tennessee. The new hospital, with a 150-bed capacity, will cost $1,100,850.

Helena, Montana—A new Lewis & Clark County Hospital, which will cost approximately $130,000, is to be erected in Helena, Montana.

Reno, Nevada—Twenty-four private rooms will be added to St. Mary's Hospital, Reno, Nevada, when the new wing which is under construction is completed about January 1, 1938.

Hot Springs, New Mexico—The Carrie Tingley Hospital for Crippled Children at Hot Springs, New Mexico, did not wait for the formal opening to admit children for treatment. By the first of September, thirty-one patients, representing each of the state's counties, were in the wards.

Brooklyn, New York—The former Chatelaine apartments in Brooklyn have been purchased by the officers and directors of the Swedish Hospital and will be converted into a modern hospital with-

FOR HOSPITAL EXECUTIVES AND PERSONNEL

There are fully 600,000 people engaged in hospital work. In round numbers 10,000 executives head the various divisions of service. About 4,000 executives are constantly studying personnel—even looking for better opportunities themselves.

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It is a service valuable both to executives and personnel. Here, any person in hospital work may, in a dignified and accepted manner, place a description of their needs or of their qualifications before our readers at minimum cost.

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These and other topics of vital interest to hospital administrators as well as to nurses are discussed in the official magazine

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Nothing accords more perfectly with the true spirit of Christmas than some service to suffering humanity. It can take no more appropriate form than a *useful* memorial gift to a hospital. The equipping of a room with HILL-ROM fine crafted furniture selected with the help of HILL-ROM decorating consultants will be a memorial gift permanent and satisfying to both the donor and the hospital.

At Christmas time hospital superintendents are often asked—"What can I do for the hospital?" HILL-ROM have for you the very thing you need to answer this question best. It is a handsome booklet entitled "For the Memorial Room", containing beautiful colored illustrations of room furniture groupings and decorations, with brief descriptive matter and an inspiring foreword. We will send to you, without charge or obligation, as many copies as you have use for. Just drop us a line.

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Makers of ARTISTIC FURNITURE *and* EQUIPMENT for HOSPITALS

in the next year. Temperature control is but one of the modern features which will be installed.

New York City—The new Beth David Hospital was formally dedicated on Sunday afternoon, October 17, 1937. The new hospital is a ten-story fireproof building, located at 161 East 90th Street, and will accommodate approximately 200 patients. The hospital is thoroughly equipped with the most modern scientific apparatus that goes toward the proper care in a general hospital.

In appreciation of the untiring efforts of the superintendent, Samuel G. Ascher, who has been with the hospital for over four years, and who has done so much in the equipping of the new building, the Board of Trustees at a recent meeting changed his position to that of "Executive Director."

The hospital was opened for the reception of patients on Monday, October 25, 1937.

Far Rockaway, L. I. New York—The new three-story wing to St. Joseph's Hospital, Far Rockaway, L. I., was dedicated recently. Funds for the addition to the hospital were raised during a community campaign, which was conducted two years ago.

Rochester, New York—A new three-story unit, which is to be known as the "Hall Memorial Building," is to be added to the Highland Hospital, Rochester, New York. The building, which will be devoted exclusively to the care of maternity patients, has been made possible by the generosity of Miss Louie Alice Hall; it is to be erected as a memorial to her sister, the late Miss Julia B. Hall.

Ticonderoga, New York—Under the terms of the will of the late Howland Pell of New York and Ticonderoga, Moses-Ludington Hospital at Ticonderoga has been bequeathed $25,000. The sum will be applied toward an addition to the hospital to be known as the Amy Gallatin Pell Annex in memory of the late Mrs. Howland Pell.

Asheville, North Carolina—The contract has been awarded for the construction of a new $50,000 wing at the Asheville Mission Hospital, Asheville, North Carolina. According to the present plans, the building will be completed and ready for occupancy in about five months.

Kinston, North Carolina—Plans have been completed and bids are being received for construction of a memorial hospital in Kinston, North Carolina.

Wilmington, North Carolina—Final approval has been given a PWA grant of $34,525 for construction of a hospital for negroes in Wilmington, North Carolina. The grant represents 45 per cent of the estimated cost of the new hospital; the city and county governments, joint sponsors of the project, have agreed to supply the remaining 55 per cent of the cost. These funds will be supplied directly from the city and county treasury over a three-year period, thereby obviating the issuance of bonds.

Cleveland, Ohio—The cornerstone of the new building for the school of nursing and the nurses' home of the Lutheran Hospital, Cleveland, Ohio, was laid recently. The new building, which has been made possible through gifts of Lutheran churches of the Missouri Synod in Cleveland, will have dormitory and class room facilities for 93 nurses. The contract price for the new structure is $143,400.

Columbus, Ohio—The new $286,000 wing of Ohio State University Hospital, nearing completion, was listed at Ohio WPA headquarters as one of nine "outstanding construction projects of the WPA program in Ohio." The WPA is providing $195,000 of the cost of the building, the University is providing $91,000. The five-story wing will provide quarters for communicable disease patients on the two upper floors, while the three floors below will accommodate needy sick persons who now are treated in the University's free dispensary and the clinic at St. Francis Hospital.

Mansfield, Ohio—A bequest of $25,000, to be known as the "Alice D. Smith Memorial Fund," was made to the Mansfield General Hospital by Richard Smith, prominent Mansfield, Ohio, business man, who died September 1.

New Philadelphia, Ohio—The new $100,000 PWA tuberculosis sanatorium, built under the direction of the Tuscarawas county commissioners without a bond issue and without the addition of any real estate tax, was opened to the public recently. For the present, the new hospital will receive only moderately advanced and advanced cases, while the early or incipient and convalescent cases will continue to be handled at the Ohio State Sanatorium at Mt. Vernon.

Waynesburg, Ohio—Formal acceptance of the new three-story Greene County Memorial Hospital at Waynesburg, Ohio, was made recently by the hospital board. The new 73-bed hospital, built at a cost of more than $100,000, is expected to be ready for occupancy about December 1.

Wellsville, Ohio—Work on remodeling of the American Legion Hospital in Wellsville, Ohio,

has been completed. All equipment has been placed and ready for use.

Henryetta, Oklahoma—The new John Taylor Hospital at Henryetta, Oklahoma, was opened to the public recently. Approximately 1,000 persons visited the hospital on the opening day.

Philadelphia, Pennsylvania—In the unwitnessed will of Miss Mary A. Spain the Woman's Hospital of Philadelphia received a bequest of $7,721. Not until after the State Supreme Court passed upon Miss Spain's will was the validity of her charitable bequest determined. The Orphans Court previously awarded the estate to five first cousins, because the will was unwitnessed.

Pittsburgh, Pennsylvania—Work will start within the next two months on the new nine-story annex to the Mercy Hospital, Pittsburgh. In addition to the new building, the fourth and sixth floors of the south wing of the hospital will be remodeled and altered. The purpose of the new building and alterations is to extend the present facilities and to rearrange the different departments to expedite the service and to promote greater efficiency.

Waymart, Pennsylvania—Work on the addition to the Farview State Hospital for the Criminal Insane at Waymart will be under way by November 15, and must be finished a year later, according to the PWA authorities at Harrisburg. The Fairview institution will receive a PWA grant of $192,000 and a loan of $1,072,000.

Orangeburg, South Carolina — The new Tri-County Hospital built primarily to serve the counties of Orangeburg, Calhoun, and Bamberg has been opened to the public. Complete in every detail, and with the most modern and up-to-date equipment, the hospital will fill a great need in that section of the state.

Memphis, Tennessee—A building permit has been issued to the Baptist Memorial Hospital, Memphis, Tennessee, for building a pavilion of eight stories and basement, an annex of five stories and basement and attic, and a one-story laundry to be built on top of the present garage. The additions, which will increase the bed capacity from 400 to 500 beds, will cost $275,000.

Big Springs, Texas—The building of a West Texas Hospital for the Insane at Big Springs, Texas, was assured when the Big Springs voters voted 606 to 16 for $50,000 in bonds to finance the providing of a site for the hospital. The plans make provision for 15 buildings grouped in a rectangular spread. The initial state appropriation of $817,000 provides for immediate construction of eight of the units. The buildings to be built first are the psychopathic; the administration; the hospital; the employees'; two ward buildings; and the utilities and power buildings.

Big Springs, Texas—Dr. C. K. Bivings is planning an addition to the Bivings Hospital, Big Springs, Texas. The new addition will more than double the present capacity of the hospital.

Fredericksburg, Texas—Plans are being made for a 20-bed hospital to be built in Fredericksburg, Texas. The proposed hospital which will cost $35,000 will be built by Dr. P. T. Donop.

Galveston, Texas—The newly completed wing of the Psychopathic Hospital in Galveston, Texas, is one of three new projects that has enlarged Galveston's hospital facilities. Other buildings just being completed are the $225,000 Crippled Children's Hospital, and the Negro Hospital, erected at a cost of $200,000; both are in the John Sealy Hospital group.

Huntington, West Virginia—Ground-breaking ceremonies for the $225,000 annex of St. Mary's Hospital, Huntington, West Virginia, were held recently.

Adams, Wisconsin—A new $25,000 hospital which will take the place of the former hospital at Friendship was completed recently at Adams, Wisconsin. One of the interesting features of this modern, well-equipped, 10-bed hospital is a structural glass wall in its operating room.

Ashland, Wisconsin—A financial campaign has been launched by the Ashland General Hospital of Ashland, Wisconsin to raise $68,000 to retire indebtedness and to provide for a new nurses' home.

Milwaukee, Wisconsin—According to the will of George Peck of Chicago and a former Milwaukeean, Mt. Sinai Hospital of Milwaukee will receive $10,000 as part of $130,000 in charitable bequests which included the Chicago Art Institute and the Jewish charities of Chicago.

Erratum

In the October issue an error was made in Dr. Alexander W. Kruger's title. Dr. Kruger is Deputy Medical Superintendent of King's County Hospital, Brooklyn, New York, not Department Medical Superintendent.

CLASSIFIED ADVERTISEMENTS

RATES: Eight cents a word. The minimum advertisement is 25 words at a cost of $2.00, including address or key number of 5 words. All answers to keyed advertisements will be forwarded. Classified advertising copy must be received at the office of *HOSPITALS*, 18 E. Division St., Chicago, Illinois, by the fifteenth of the month preceding issue.

Commercial announcements accepted at the same rate. Remittance must accompany classified advertisements.

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